

Effective October 1, 2016, Env-Wq 1000 reads as follows:**CHAPTER Env-Wq 1000 SUBDIVISIONS; INDIVIDUAL SEWAGE DISPOSAL SYSTEMS**

Statutory Authority: RSA 485-A:6, III; 29, I; 30-b, IV; 35, II; 38, III; 39, VI; & 41, IV & V

PART Env-Wq 1001 PURPOSE; APPLICABILITY; WAIVERS; STATUTORY DEFINITIONS

Env-Wq 1001.01 Purpose. The purpose of these rules is to implement RSA 485-A:29-44 relative to subdivisions and individual sewage disposal systems, in order to protect water supplies, prevent pollution in the surface and groundwaters of the state, and prevent nuisances and potential health hazards.

Env-Wq 1001.02 Applicability. These rules shall apply to:

- (a) Individual sewage disposal systems (ISDSs) as defined herein;
- (b) Proposed subdivisions where the structures are or will be served by ISDSs as regulated hereunder;
- (c) Developed waterfront property that is subject to RSA 485-A:39; and
- (d) Innovative/alternative technology for ISDSs for which approval is sought to allow use of the technology in New Hampshire.

Env-Wq 1001.03 Waivers.

(a) Subject to (h), below, anyone filing an application for approval of an ISDS who wishes to obtain a waiver of one or more specific requirements established in this chapter shall request the waiver as set forth in this section.

(b) A request for a waiver, including a request for an encroachment waiver as defined by RSA 485-A:2, III-a, shall be submitted to the department with the application or as soon thereafter as the need for the waiver becomes known.

(c) Each request for a waiver shall include the following information on a waiver request form obtained from the department:

- (1) Information to identify the applicant, the applicant's agent, if any, the ISDS owner if other than the applicant, and the property owner, if other than the applicant, as specified in Env-Wq 1003.12(a);
- (2) The location at which the ISDS to which the waiver request is proposed to be installed, as specified in Env-Wq 1003.12(d);
- (3) The total number of waiver requests being submitted with the application; and
- (4) For each waiver:
 - a. The part and section number and the specific language of the rule for which a waiver is being sought;
 - b. A full explanation of why a waiver is being sought, including a description of the operational and economic consequences of complying with the established requirement;
 - c. A full explanation of the alternatives for which a waiver is sought, if any, with backup calculations and data for support; and
 - d. A full explanation of how the grant of the waiver is consistent with the criteria specified in (f), below.

(d) The applicant, the applicant's agent, the ISDS owner, and the property owner, if other than the applicant or ISDS owner, shall sign and date each waiver request, provided that if the request is filed

electronically, the applicant's agent shall file a pdf of the certification required by (e), below, that has been signed by the applicant, the ISDS owner, and the property owner.

- (e) Each signature provided pursuant to (d), above, shall constitute certification by the signer that:
 - (1) The information contained in or otherwise submitted with the waiver request is true, complete, and not misleading to the best of the signer's knowledge and belief; and
 - (2) The signer understands that:
 - a. The submission of false, incomplete, or misleading information constitutes grounds for the department to:
 - 1. Deny the waiver request and the application to which it relates;
 - 2. Revoke any waiver or approval that is granted based on the information;
 - 3. If the signer is a permitted designer, suspend, revoke, or refuse to renew the designer's permit; and
 - 4. If the signer is a professional engineer, refer the matter to the joint board of licensure and certification established by RSA 310-A:1; and
 - b. The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.
- (f) The department shall grant a waiver only if it determines that:
 - (1) Granting a waiver will be consistent with the intent of RSA 485-A and these rules;
 - (2) If the requested waiver is to an on-site well, the reduced distance is consistent with reductions allowed by rules adopted by the Water Well Board;
 - (3) The requested waiver is not to surface water, very poorly drained soils, or an off-lot well installed prior to July 1, 1989; and
 - (4) A waiver is necessary to:
 - a. Allow an existing legal use to continue;
 - b. Accommodate an expansion of an existing use, subject to (j), below;
 - c. Allow an undeveloped lot of record to be used for a 2-bedroom residence; or
 - d. Approve plans to replace an ISDS in failure.
- (g) Each waiver granted shall:
 - (1) Be part of the written approval of the application;
 - (2) Include such conditions as are necessary to ensure the criteria in (f), above, are met;
 - (3) Expire with the approval; and
 - (4) Be transferable with the approval.
- (h) If a waiver is denied and the denial causes the application to not be approvable, the denial of the waiver shall be in writing as part of the denial of the application.
- (i) As specified in RSA 485-A:41, IV, no waiver of rules relating to site loading or set-back distances to groundwater or surface waters, sometimes also called separation distances, shall be allowed for an ISDS on a lot created after September 1, 1989.

(j) No waivers to requirements in these rules for tank size, bed size, or EDA setbacks to very poorly drained soils, surface waters, or off-lot wells installed prior to July 1, 1989 shall be allowed to accommodate any expansion of an existing use or conversion to full-time occupancy.

Env-Wq 1001.04 Statutory Definitions. When used in these rules, the terms listed in table 1001-1, below, shall have the meaning assigned by the statute identified, as reprinted in Appendix C:

Table 1001-1: Statutory Definitions

Term	Statute
Bedroom	RSA 485-A:2, XX
Commissioner	RSA 485-A:2, I-c
Department	RSA 485-A:2, III
Developed waterfront property	RSA 485-A:2, I
Development plan	RSA 485-A:2, II
Encroachment waiver	RSA 485-A:2, III-a
Failure	RSA 485-A:2, IV
Innovative/alternative waste treatment	RSA 485-A:2, XXI
Lot	RSA 485-A:2, VII
Manufactured housing	RSA 205-A:1, I
Manufactured housing park (MHP)	RSA 205-A:1, II
Natural woodland buffer	RSA 483-B:4, XI
Other wastes	RSA 485-A:2, VIII
Person	RSA 485-A:2, IX
Primary building line	RSA 483-B:4, XIII
Protected shoreland	RSA 483-B:4, XV
Public water system	RSA 485:1-a, XV
Recreational campground	RSA 216-I:1, VII
Reference line	RSA 483-B:4, XVII
Sewage	RSA 485-A:2, X
Sewage disposal system	RSA 485-A:2, XI
Subdivider	RSA 485-A:2, XII
Subdivision	RSA 485-A:2, XIII
Supplier of water	RSA 485:1-a, XVI
Surface waters of the state	RSA 485-A:2, XIV
Tract or parcel of land	RSA 485-A:2, XV
Wetlands	RSA 482-A:2, X

PART Env-Wq 1002 DEFINITIONS

Env-Wq 1002.01 “Aeration tank” means a tank in which wastewater is brought into contact with air for the purposes of facilitating biological degradation.

Env-Wq 1002.02 “Applicant” means a person having a legally-recognized interest in the land proposed to be subdivided or the structure(s) to be served by the proposed ISDS, as applicable, that is sufficient for the person to legally proceed with the subdivision or installation, as applicable, if an approval is issued.

Env-Wq 1002.03 “Applicant’s agent” means a person who has been duly authorized by an applicant to file an application for approval of a proposed subdivision or ISDS on behalf of the applicant and to interact with department staff regarding the application.

Env-Wq 1002.04 “Approval to operate” means written approval to cover and use or operate the constructed ISDS, which is issued only after inspection by department staff under RSA 485-A:29, I.

Env-Wq 1002.05 “Approved plans and specifications” means the plan(s) submitted for a proposed ISDS that have been approved by the department, together with the associated specifications for the

proposed ISDS. Prior to approval to operate being granted, the term includes the construction approval. Subsequent to approval to operate being granted, the term includes the approval to operate and the maintenance pamphlet published by the department, “You and Your Septic System”.

Env-Wq 1002.06 “Bed” means the portion of an effluent disposal area that contains the effluent conduits and the sand, septic stone, or other materials, or any combination thereof, that are integral to the dispersal of effluent from the conduits.

Env-Wq 1002.07 “Biomat interface” means a biologically active layer that forms between the bottom of the bed and the underlying fill material or receiving layer or, in the case of large diameter graveless pipe systems, on the inside of the non-woven fabric wrap.

Env-Wq 1002.08 “Bunkhouse” means a structure that:

- (a) Serves solely as an supplementary sleeping area for a residence;
- (b) Has no kitchen or other cooking facilities; and
- (c) Has no shower or bathing facilities; and
- (d) Has no interior connection to the residence.

Env-Wq 1002.09 “Cesspool” means an in-ground pit into which is discharged raw or partially-treated sewage or other essentially untreated wastes and from which the liquid seeps or leaches into the surrounding soil. The term includes cesspit and effluent disposal cesspool.

Env-Wq 1002.10 “Chamber system” means an ISDS in which effluent is dispersed through preformed, interconnected, open bottom units, called chambers, that also provide effluent storage space and mechanical support for the soil overburden.

Env-Wq 1002.11 “Cluster subdivision” means an open space/conservation subdivision.

Env-Wq 1002.12 “Commercial” means of or relating to activities conducted to provide goods or services, or both, or to create, manufacture, or otherwise produce goods of any kind, whether for profit or not, regardless of where the activities occur. The term does not include home office activities conducted in an individual’s own residence where no non-domestic wastewater is generated, but does include other business and industrial operations conducted in a portion of a structure that otherwise is a residence. For purposes of sizing an effluent disposal area, the term includes any structure that is not a residence as defined below.

Env-Wq 1002.13 “Composite average slope” means the measurement of an incline by a single value that represents the average of a set of unequal values.

Env-Wq 1002.14 “Construction approval” means written approval for construction of an ISDS.

Env-Wq 1002.15 “Conventional pipe and stone system” means an ISDS in which effluent is dispersed through small-diameter pipe that is perforated only on the lower half and that lies within a layer of septic stone.

Env-Wq 1002.16 “Department staff” means an employee or agent of the department who is authorized by the department to review and discuss preliminary plans for subdivision or ISDS, or both, to advise on modifications, and to approve plans for subdivisions or ISDS, or both, and installations of ISDS for the department.

Env-Wq 1002.17 “Design intent” means a statement of the elevation of the actual bed bottom in relation to an established reference elevation on site.

Env-Wq 1002.18 “Domicile” means that place where an individual has his or her true, fixed, and permanent home and principal establishment, and to which, whenever he or she is absent, he or she has the intention of returning. An individual might have more than one residence, but has only one domicile.

Env-Wq 1002.19 “Do not backfill order” means a written notice issued by department staff to the installer of an ISDS that has not been installed in accordance with the approved plans and specifications.

Env-Wq 1002.20 “Drainage swale” means a vegetated area where waters flow to such a limited extent that neither channels nor wetlands vegetation develop.

Env-Wq 1002.21 “Dry well” means an effluent disposal area constructed as a covered, underground pit with an open-jointed or perforated lining and surrounded with septic stone, into which effluent is discharged for final disposal into the surrounding soil. The term includes seepage pit and effluent disposal pit.

Env-Wq 1002.22 “Effluent” means the liquid component of sewage after solids have settled out.

Env-Wq 1002.23 “Effluent conduit” means the structure through which effluent travels to reach the surrounding material in a bed. The term includes large-diameter graveless pipes, chambers, small-diameter perforated pipes, and any other conduit approved under Env-Wq 1024.

Env-Wq 1002.24 “Effluent disposal area (EDA)” means the bed of an ISDS and any required fill extensions. If no fill extension is required, the bed and the EDA are the same area.

Env-Wq 1002.25 “Expansion” means an increase in the size of an existing structure or of a structure that is being rebuilt after having been damaged or destroyed. The term does not include an expansion of use of an existing structure.

Env-Wq 1002.26 “Expansion of use” means modifying the use of an existing structure in a way that results in an actual or potential increase in the volume of wastewater discharged to the ISDS serving the structure. The term includes any activity that would increase the load on a sewage disposal system as that phrase is defined in Env-Wq 1002.33.

Env-Wq 1002.27 “Fill extension” means the area of horizontal fill around a bed in a raised system or a system on a slope. The term does not include side slopes.

Env-Wq 1002.28 “Gallons per day (GPD)” means the standard measure of water or wastewater flow in a 24-hour period.

Env-Wq 1002.29 “Gravity grease interceptor” means a tank or series of tanks into which wastewater that contains grease is discharged, where grease floats to the water’s surface and is retained while the water below is discharged, previously called a “grease trap”.

Env-Wq 1002.30 “Holding tank” means a sealed tank with no outlet to a dry well or other effluent disposal area that stores sewage, alone or mixed with other wastes, until the wastes can be pumped out and hauled to an approved disposal site. A holding tank is not an ISDS.

Env-Wq 1002.31 “Horizon” means a soil layer.

Env-Wq 1002.32 “Hydric soil” means a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.

Env-Wq 1002.33 “Hydrophytic vegetation” means vegetation typically adapted for life in inundated or saturated soil conditions.

Env-Wq 1002.34 “Impermeable substratum” means any subsurface material which is relatively impervious, such as hard pan, clay, slate-like materials and other materials having a percolation rate of greater than 60 minutes per inch.

Env-Wq 1002.35 “Increase the load on a sewage disposal system”, as used in RSA 485-A:38, means:

- (a) In an existing residential structure, adding bedrooms or converting existing rooms to additional bedrooms, with or without creating an accessory dwelling unit as defined in RSA 674:71;
- (b) Converting from seasonal to full-time use or occupancy, as specified in Env-Wq 1004.18;

- (c) Converting from residential use only to residential plus commercial use or commercial use only; or
- (d) Changing or adding to an existing commercial use so as to increase the flow as calculated using Env-Wq 1008.03.

Env-Wq 1002.36 “Individual sewage disposal system (ISDS)” means any wastewater disposal or treatment system that receives domestic sewage, other than a holding tank, a cesspool, or a system regulated under Env-Wq 700. The term includes septic tank/EDA systems, privies or dry pit toilets, and incinerator-type toilets such as gas-operated, electric, fossil-fueled or any combination thereof.

Env-Wq 1002.37 “Inspection” means an on-site review by department staff of an ISDS to ensure that the installed system is in compliance with the approved plans and specifications.

Env-Wq 1002.38 “Install” means to establish or construct an ISDS or any component thereof.

Env-Wq 1002.39 “ISDS owner” means the person who owns the structure(s) served by an existing ISDS or to be served by a proposed ISDS.

Env-Wq 1002.40 “Large-diameter graveless pipe (LDGP) system” means an ISDS where the effluent conduits are pipes that are at least 10 inches in diameter with perforations throughout their circumferences, wrapped in non-woven fabric material separated from the pipe by an intermediate layer, and embedded in sand, such that the biomat interface is formed on the inside of the non-woven fabric.

Env-Wq 1002.41 “Large system” means an ISDS that is designed for a flow of more than 2,500 gallons of sewage per day.

Env-Wq 1002.42 “Ledge lot” means a lot on which the only area suitable for the bed and receiving layer has:

- (a) Less than 4 feet of naturally-deposited soil above ledge, if the proposed ISDS incorporates effluent conduits for which a smaller distance has not been approved; or
- (b) Less than the separation distance specified in the approval granted for innovative technology under Env-Wq 1024, for a proposed ISDS that incorporates effluent conduits approved under that part.

Env-Wq 1002.43 “Ledge tank” means any septic tank designed to maintain a liquid depth of less than 40 inches.

Env-Wq 1002.44 “Marshes”, for the purposes of Env-Wq 1000, means areas that are ponded or saturated for extended periods of time, do not support woody vegetation, are dominated by soft-stemmed herbaceous plants such as grasses, reeds, and sedges, and exhibit very poorly drained soil conditions as determined pursuant to Env-Wq 1014.03.

Env-Wq 1002.45 “Open space/conservation subdivision” means a purely residential subdivision of a tract of land, where:

- (a) A number of housing units are clustered on lots with dimensions and frontages reduced from minimum lot sizes required by Env-Wq 1005.03;
- (b) The dwelling unit density of the tract as a whole is equal to the density achieved by the lot sizing criteria of Env-Wq 1005.03 based on soil types and slopes; and
- (c) All land that is not housing lots is preserved as open space.

Env-Wq 1002.46 “Organic soil material” means from 12 to 18 percent or more organic carbon by dry weight, depending upon the clay content.

Env-Wq 1002.47 “Percolation (perc) rate” means the number of minutes needed for water to drop one inch into the soil within a percolation test hole, used to estimate suitability of the soil for receiving and dispersing effluent.

Env-Wq 1002.48 “Percolation (perc) test” means the method by which the percolation rate is established, as described in Env-Wq 1007.

Env-Wq 1002.49 “Permitted designer” means an individual who holds a current authorization under RSA 485-A:35, I, to design ISDSs.

Env-Wq 1002.50 “Permitted installer” means an individual who holds a current authorization under RSA 485-A:36, I, to install ISDSs.

Env-Wq 1002.51 “Poorly drained soils” means hydric soils that have aquic conditions in the upper part and one or more of the characteristics identified in Env-Wq 1014.02.

Env-Wq 1002.52 “Property owner” means:

- (a) For a subdivision application, the owner of the property proposed to be subdivided; and
- (b) For an ISDS application, the owner of the property on which the ISDS is proposed to be installed.

Env-Wq 1002.53 “Prominent redoximorphic features” means the contrast in color between a redoximorphic feature and the matrix.

Env-Wq 1002.54 “Public sewer” means any publicly-owned pipe or conduit designed to receive and convey sewage or other wastes to a municipally-owned and operated treatment works.

Env-Wq 1002.55 “Receiving layer” means the natural soil under and around a bed, beyond the biomat interface, that receives, filters, and provides final disposal and dispersal of the effluent.

Env-Wq 1002.56 “Redoximorphic features” means features associated with soil wetness that are formed by the processes of reduction, translocation, and/or oxidation of iron and manganese oxides.

Env-Wq 1002.57 “Repaired or replaced” means, when applied to an ISDS, reconstructing all or a portion of the effluent disposal area so that the bed and its associated components contain and treat effluent as intended. The term does not include replacing a septic tank as specified in Env-Wq 1010.14, replacing a pump or distribution box, or adding or replacing a vent, when no work is done on the effluent disposal area.

Env-Wq 1002.58 “Residence” means a stand-alone single-family housing unit or a stand-alone structure containing 2 housing units, such as duplex housing or a home with an in-law apartment, at which no commercial activities are conducted. For purposes of these rules, the term includes 2 stand-alone single-family housing units when connected, or proposed to be connected, to the same ISDS.

Env-Wq 1002.59 “Residential” means of or relating to activities typical of day-to-day living at a residence, including but not limited to sleeping, eating, and bathing. The term includes home office activities conducted in an individual’s own residence where no non-domestic wastewater is generated. The term does not include any activity that is commercial.

Env-Wq 1002.60 “Restrictive layer” means a soil horizon that restricts the downward flow of water and is uncharacteristic of the soil layers above and below, such as a layer of soil with a consistence of firm or very firm, cemented horizons, or stratified layers of silt, loam or clay within the soil profile.

Env-Wq 1002.61 “Seasonal high water table” means the level at which the uppermost soil horizon contains 2% or more distinct or prominent redoximorphic features that increase in percentage with increasing depth.

Env-Wq 1002.62 “Senior housing” means housing that qualifies as “housing for older persons” as specified in RSA 354-A:15, as reprinted in Appendix F.

Env-Wq 1002.63 “Septic tank” means a watertight unit designed to receive sewage and other wastes for the purpose of removing substantially all settleable solids.

Env-Wq 1002.64 “Shoreland frontage” means the average of the distances of the actual natural shoreline footage and a straight line drawn between property lines.

Env-Wq 1002.65 “Slope” means the difference in elevation in feet for 100 feet of horizontal distance.

Env-Wq 1002.66 “Small system” means an ISDS that is designed for a flow of not more than 2,500 gallons of sewage per day.

Env-Wq 1002.67 “Soil horizon” means a distinct layer of soil running parallel to the soil surface, designated as the O, A, B or C horizon proceeding vertically through the soil profile from the soil surface downward.

Env-Wq 1002.68 “Special flood hazard area” means “special flood hazard area” as defined in 44 CFR 59.1, as reprinted in Appendix D.

Env-Wq 1002.69 “Standard dimension ratio (SDR)” means the ratio of pipe diameter to pipe wall thickness.

Env-Wq 1002.70 “State-approved” means, when applied to an ISDS, that the department has issued a construction approval and an approval to operate for the ISDS, and no modifications have been made to the ISDS such that it does not conform to the approved plans and specifications.

Env-Wq 1002.71 “Steady state” means a condition that changes only negligibly over time.

Env-Wq 1002.72 “Subdivision approval” means written approval of subdivision plans and specifications.

Env-Wq 1002.73 “Test pit” means a hole dug to determine soil characteristics and profile description.

Env-Wq 1002.74 “Treatment tank” means a tank that is used in addition to or in place of a septic tank to treat the wastewater entering the treatment tank to remove or reduce the amount of one or more contaminants, such as those identified in Env-Wq 1024.10(a), prior to discharging the effluent to an effluent disposal area.

Env-Wq 1002.75 “Trench system” means an ISDS in which the effluent conduits are separated by a vertical barrier of soil.

Env-Wq 1002.76 “Very poorly drained soils” means hydric soils that are flooded daily by tides or soils that have aquic conditions in the upper part and have one or more of the characteristics identified in Env-Wq 1014.03.

Env-Wq 1002.77 “Watercourse”, as used in RSA 485-A:2, XIV, means a channel providing for the conveyance of water, whether natural or artificial, which is scoured, indicating periods of concentrated flow. The term does not include drainage swales and areas of poorly drained soils in which no scour channel exists.

Env-Wq 1002.78 “When land is exchanged between abutters” as used in RSA 485-A:33, II, means that each lot involved in the exchange retains sufficient area to support:

(a) The originally-approved on-site wastewater loading, if the lots were part of a subdivision approved under this chapter or any predecessor statute; or

(b) The existing use of the lot, if the lots pre-date the statutory requirement to obtain subdivision approval.

PART Env-Wq 1003 APPLICATIONS FOR SUBDIVISION OR ISDS APPROVAL

Env-Wq 1003.01 Submission of Applications Required Prior to Commencement of Work.

(a) As established in RSA 485-A:32, I:

- (1) No person shall construct any building from which sewage or other wastewater will discharge without first obtaining approval of the plans and specifications for the ISDS from the department; and
- (2) No person shall construct any ISDS without first obtaining approval of the plans and specifications for the ISDS from the department.

(b) As established in RSA 485-A:32, III, no person required to submit subdivision plans shall, prior to obtaining subdivision approval from the department:

- (1) Commence the construction of roads within the area proposed to be subdivided, by clearing the land thereof of natural vegetation, placing any artificial fill thereon, or otherwise altering the land; or
- (2) Take any other action(s) that will alter or contribute to the alteration of the natural state of the land or environment.

(c) Also as established in RSA 485-A:32, III, the prohibitions identified in (b), above, shall not be construed to prevent the preliminary testing and inspection necessary to develop the information needed to compile a subdivision application, such as taking test borings, digging test pits, and surveying land.

Env-Wq 1003.02 Agents; Preparation of Plans; Seals Required.

(a) The agent for an applicant for subdivision approval shall be a licensed land surveyor or a permitted designer.

(b) The agent for an applicant for ISDS approval shall be a permitted designer.

(c) Plans for a small ISDS shall be prepared by a permitted designer, except that a property owner may prepare a design for a small ISDS to serve his or her own domicile, as provided in RSA 485-A:35, II.

(d) Plans for an ISDS that are prepared by a permitted designer shall bear the seal of that permitted designer.

(e) The seal required by (d), above, shall be as follows:

- (1) The seal shall be circular in design with corner borders;
- (2) The seal shall be 1.9 inches in height;
- (3) The circular portion shall include the wording "New Hampshire" at the top and "Department of Environmental Services" at the bottom; and
- (4) The words "Designer of Subsurface Disposal Systems" and the name and permit number of the permitted designer shall be contained within the circular area.

(f) Subject to (g), below, an ISDS shall be designed by a permitted designer who is also a civil or sanitary professional engineer (P.E.) licensed in the state of New Hampshire if the ISDS is:

- (1) For a single structure for which the ISDS will have a design flow of greater than 2,500 GPD;
- (2) For a group of structures proposed to share an EDA for which the combined design flow is greater than 2,500 GPD;

- (3) On a ledge lot, and has a design flow of:
 - a. Greater than 600 GPD for a commercial use; or
 - b. Greater than 1,500 GPD for a residential use; or
- (4) A pipe-and-stone system intended to be installed beneath a driveway or parking area.

(g) Plans for an ISDS designed pursuant to (f), above, shall bear the individual's designer seal as specified in (b), above, and P.E. seal as required by RSA 310-A:18.

(h) Plans for an ISDS required by (f), above, to be designed by a permitted designer/P.E. may be designed by a permitted designer who is not a P.E., but shall only be submitted to the department after being reviewed and approved by a P.E. who is also a permitted designer. For such applications, the plans shall bear the designer seal of the permitted designer who designed the ISDS and the P.E. seal of the P.E. who reviewed and approved the plans.

(i) As required by RSA 310-A:67, II, plans that involve the practice of land surveying as defined by RSA 310-A:54, IV shall bear the stamp and signature of a licensed land surveyor.

(j) For any ISDS designed by a permitted designer/P.E. pursuant to (f) or (h), above, that was approved with multiple connections to one or more EDAs, an application to connect to the EDA shall not require a P.E. stamp.

Env-Wq 1003.03 Format of Plans.

(a) The final plans for any subdivision of land and for any ISDS submitted for approval on paper shall meet the format requirements specified in (b) through (f), below.

(b) Left margins shall be 2 inches for binding, and the remaining margins shall be at least one inch.

(c) Subdivision plans shall have a scale of not more than 50 feet to one inch, unless the plan will not fit on a 28 inch by 40 inch sheet of paper, in which case a scale of one inch to 100 feet or one inch to 200 feet shall be used.

(d) For ISDS plans, the lot and system shall be shown on a scale of not more than 20 feet to one inch, except that if the lot cannot be shown on a 1:20 scale, it shall be shown on a larger scale on a separate sheet.

(e) Sheet sizes shall be 22 inches x 34 inches or 24 inches x 36 inches, with separate sheets numbered and showing relationship to each other.

(f) All plans shall be folded to 8-1/2 inches by 11 inches.

(g) For plans submitted electronically, the format shall be as specified in the user agreement entered into by the registered user.

Env-Wq 1003.04 Application Fee. The applicant shall pay the application fee required by RSA 485-A:30 with the application.

Env-Wq 1003.05 Required Signatures and Certifications.

(a) Each application for subdivision approval shall be signed by the applicant, the applicant's agent, if any, and the property owner if other than the applicant.

(b) Each application for ISDS approval shall be signed by the applicant, the applicant's agent, if any, the ISDS owner if other than the applicant, and the property owner if other than the applicant, applicant's agent, or ISDS owner.

(c) Each signature provided as required by (a) or (b), above, shall constitute certification by the signer that:

(1) The information contained in or otherwise submitted with the application is true, complete, and not misleading to the best of the signer's knowledge and belief; and

(2) The signer understands that:

a. The submission of false, incomplete, or misleading information constitutes grounds for the department to:

1. Deny the application;

2. Revoke any approval that is granted based on the information;

3. If the signer is a permitted designer, suspend, revoke, or refuse to renew the designer's permit; and

4. If the signer is a professional engineer, refer the matter to the joint board of licensure and certification established by RSA 310-A:1; and

b. The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.

(d) If a subdivision application or ISDS application is submitted electronically, the use of the user log-on ID, password, and personal identification number (PIN) assigned to the registered user shall constitute the signature and certification required by (a) or (b), above, as applicable, for the registered user.

(e) The signature of the ISDS owner provided pursuant to (b), above, or of the applicant if other than the ISDS owner, shall also constitute certification that the signer:

(1) Has reviewed the plans for the proposed ISDS;

(2) Agrees that the plans reflects the signer's needs and desires for an ISDS; and

(3) Understands that should the application be approved, any change(s) will require a new submission, review, and approval except as allowed by Env-Wq 1004.08.

(f) If a subdivision application or ISDS application is submitted electronically, the registered user shall submit a portable document format (pdf) copy of all other signatures and certifications required by (a) or (b), above, as applicable, with the application.

Env-Wq 1003.06 Information Required for Subdivision Applications. Each applicant seeking approval under RSA 485-A:29, I, for a proposed subdivision shall submit the following on or with the application form obtained from the department:

(a) Information about the applicant, applicant's agent, and property owner, as follows:

(1) The name and mailing address of the applicant and, if the applicant is submitting the application directly and not through an agent, the applicant's daytime telephone number and e-mail address, if available;

(2) The name, mailing address, daytime telephone number, email address if available, and NHDES designer number or surveyor number as applicable, of the applicant's agent; and

(3) If the applicant is not the current property owner, the name and mailing address of the owner of the property that is proposed to be subdivided (subject property) and an explanation of the applicant's legal interest in the subject property, such as having signed a purchase and sale agreement with the property owner to acquire the subject property;

(b) Information about the subject property, as follows:

- (1) The street address, including municipality and zip code;
- (2) The tax map number(s), block number(s) if any, and lot number(s);
- (3) The proposed subdivision name and proposed number of new lots; and
- (4) The proposed lot numbers;

(c) The proposed type of water supply to be used in the subdivision, whether one or more private wells or a public water system, and:

- (1) If an existing public water system, the name of the system;
- (2) If a proposed public water system, the proposed name of the system and the date the application required by RSA 485 was filed; or
- (3) If one or more private wells, then for each well:
 - a. Whether the well is on or off the lot served by the well, provided that if the well is not on the lot served then a copy of the recorded easement or deeded water rights shall be submitted with the application; and
 - b. If the well is on the lot served by the well but the well radius extends off the lot, then:
 1. Whether the well radius is on property that is precluded from development and the reason for the preclusion; or
 2. Whether the well radius is on a recorded easement, in which case a copy of the recorded easement shall be submitted with the application;

(d) The type of proposed development of the subject property, for example residential, commercial, or industrial, and:

- (1) If residential, whether single-family, duplex, apartment building(s), condominium(s), manufactured housing park, or some combination thereof;
- (2) If commercial, whether any lots are for camping and whether a public food establishment is planned; and
- (3) Whether any lots are to be designated as unbuildable;

(e) The proposed flow per lot, in gallons per day (GPD), and a description of the flows if the uses are not the same on all lots;

(f) Whether any portion of the subject property is within 250 feet of the reference line of a waterbody protected under RSA 483, the Shoreland Water Quality Protection Act and, if so, whether the protected waterbody is a lake or pond, tidal area, or river or stream and the name of the waterbody;

(g) Whether other department permits or registrations, hereinafter called “approvals”, are required for the proposed subdivision, including but not limited to approvals for ISDS, alteration of terrain under RSA 485-A:17, groundwater discharge under Env-Wq 402, wetlands dredge and fill or construction under RSA 482-A, or shoreland activities under RSA 483-B, and if so:

- (1) Whether the application is pending or the approval has been obtained; and
- (2) If the approval has been obtained:
 - a. The approval number, if any; or
 - b. If there is no approval number, the date the approval was issued;

(h) A statement signed by the applicant or the applicant's agent certifying that the plan conforms to all applicable local zoning ordinances and regulations; and

(i) One or more plan sheets containing the information specified in Env-Wq 1003.07.

Env-Wq 1003.07 Plans Required for Subdivision Applications. The plan sheets required by Env-Wq 1003.06(i) shall show the following:

(a) The entire subject property;

(b) Each property that shares a common boundary with the subject property;

(c) The name of each abutter, shown on the lot owned by that abutter;

(d) All easements of record and all easements to be granted across any lot for which approval is requested;

(e) The topography of the subject property, with elevations referenced to mean sea level (M.S.L.) or to the mean high water level of the nearest surface water or to other local bench mark, shown as follows:

(1) Ground surface elevations throughout the subdivision in sufficient number to indicate the topography; or

(2) If the property is not level, contour lines drawn with maximum intervals of 5 feet;

(f) The location of any part of the subject property that lies within a special flood hazard area;

(g) The location of any part of the subject property that is subject to deeded rights of flowage;

(h) The location of all surface waters and wetlands on or within 75 feet of the subject property, identified in accordance with Env-Wq 1014.06;

(i) A note certifying that all wetlands have been delineated in accordance with Env-Wq 1014.06 and identifying who performed the delineation and the month and year in which it was done;

(j) The location of existing and proposed culverts and dredge and fill areas;

(k) Proposed lot boundaries and, for each lot:

(1) The area of the lot and the specific lot number;

(2) Access to the lot from a street or other public way;

(3) A delineation of all areas unsuitable for conventional subsurface disposal;

(4) A delineation of the area(s) dedicated to sewage disposal; and

(5) If the lot will have an on-lot well, the location of the well and its protective radius;

(l) For each lot having shoreland frontage, the:

(1) Length of the frontage; and

(2) Topography of an area equal to or greater than the lot size determined by Env-Wq 1005.03 for the lot;

(m) The location of:

(1) Each proposed or previously-approved ISDS or 4,000 ft² area required by Env-Wq 1005.02(b)(2);

- (2) Each existing ISDS; and
- (3) Water pipes and existing buildings on the subject property and within any of the set-backs established in Env-Wq 1000 on abutting properties, or, if access to an abutting property is denied, a statement to that effect;
- (n) All ledge outcrops within 75 feet of:
 - (1) Any proposed EDA; or
 - (2) The 4,000 ft² area required by Env-Wq 1005.02(b)(2);
- (o) The location of test pits and percolation tests, numbered to facilitate keying to the data required by (p) through (r), below;
- (p) Percolation test results at each 4,000 ft² area required by Env-Wq 1005.02(b)(2) or proposed EDA and the date and depth measured for each lot;
- (q) For each test pit, the following information:
 - (1) The depth from ground surface to seasonal high water table;
 - (2) The depth from ground surface to impermeable substratum; and
 - (3) A description of each soil horizon in accordance with Env-Wq 1006.05;
- (r) Data for each test pit dug, shown on the plans if there is sufficient room or on attached 8-1/2-inch by 11-inch sheets, bearing the permitted designer's stamp on each sheet; and
- (s) The location of the subject property on a United States Geological Survey (USGS) quadrangle map or other suitable location plan in sufficient detail so that an inspector is able to locate the site.

Env-Wq 1003.08 Additional Requirements For Subdivisions To Be Served By A Public Water System.

- (a) If the proposed type of water supply to be used in the subdivision is a new public water system (PWS), the applicant shall submit an application for approval of the PWS to the department as required by RSA 485 and rules adopted thereunder in subtitle Env-Dw.
- (b) If the lots in the proposed subdivision will be connected to an existing PWS, the applicant shall submit the following:
 - (1) A statement from the supplier of water that it can and will supply water to the subdivision, which shall be included with the application submitted pursuant to RSA 485-A:29, I and this chapter; and
 - (2) Plans of water main extensions, which shall be submitted to the department as required by RSA 485 and rules adopted thereunder in subtitle Env-Dw.
- (c) The department shall not issue an approval for a subdivision that is to be served by a PWS unless and until the PWS approval has been issued.

Env-Wq 1003.09 Subdivision Contracts Allowed Before Approval.

- (a) A subdivider shall not be required to obtain approval of the subdivision plans prior to executing contracts for sale or other conveyance of lots in the subdivision where such contracts are expressly made conditional on the subdivider obtaining approval prior to closing or other passage of title or other interest upon payment of the agreed-to price.

(b) Purchase and sale or other contracts containing the following language, or language of equal import, shall be acceptable under this rule:

“This contract is expressly conditioned upon (subdivider) obtaining approval of the subdivision from the New Hampshire Department of Environmental Services prior to the (closing/final transfer/lease) date, and (closing/final transfer/lease) shall not occur unless and until (subdivider) has provided (purchaser/lessee/unit owner) with written approval by the Department of the subdivision or the part thereto containing (purchaser's) (lot/unit) containing the (lot/unit) as described herein.”

Env-Wq 1003.10 Subdivision Approval Required Prior to Septic System Approval. Any lot of less than 5 acres in size that does not have subdivision approval or meet one of the exceptions listed in Env-Wq 1003.11(a) shall not be considered for ISDS approval without meeting the requirements of Env-Wq 1000 for subdivision approval.

Env-Wq 1003.11 Lots or Condominiums Not Having Subdivision Approval.

(a) The department shall not require that a lot of less than 5 acres have subdivision approval prior to being eligible for ISDS approval in the following circumstances:

- (1) The lot is within 1,000 feet of surface water and was created prior to July 1, 1967;
- (2) The lot is not within 1,000 feet of surface water and was created prior to July 1, 1971; or
- (3) The lot is within 1,000 feet of surface water and was created between July 1, 1967 and July 1, 1975 or is not within 1,000 feet of surface water and was created between July 1, 1971 and July 1, 1975, and:
 - a. The lot is within a subdivision that received local approval, if such approval was required by local ordinances or regulations in place at the time the lot was created;
 - b. At least 50% of the other lots in the subdivision have been built on pursuant to valid construction approvals issued by the department or its predecessor agency, or 25% to 50% of the lots, including at least one abutting lot, have been built on pursuant to valid construction approvals; and
 - c. Subdivision approval cannot be obtained from the department because the lot does not meet current subdivision criteria.

(b) The department shall not require that a condominium have subdivision approval prior to being eligible for ISDS approval if the condominium was created before June 18, 1971.

(c) The department shall not require that a condominium have subdivision approval prior to being eligible for ISDS approval if the condominium was created between June 18, 1971 and September 1, 1989, and:

- (1) The condominium received local approval prior to September 1, 1989, if such approval was required by local ordinances or regulations in place at the time the condominium was created;
- (2) The declarant, as defined in RSA 479-A or in RSA 356-B as in effect at the time the condominium was created, is no longer a majority owner of the condominium;
- (3) The condominium was registered under RSA 479-A or was approved by the New Hampshire attorney general under RSA 356-B, if required by the statute in effect at the time the condominium was created; and
- (4) Through inadvertence or mistake, the condominium developer did not request subdivision approval from the department or its predecessor, the water supply and pollution control commission, at the time the approvals specified in (1) and (3), above, were obtained.

Env-Wq 1003.12 Information Required for ISDS Applications. Each applicant seeking approval under RSA 485-A:29, I, for a proposed ISDS shall submit the following on or with the application form obtained from the department:

- (a) Information about the applicant, applicant's agent, ISDS owner, and property owner, as follows:
 - (1) The name and mailing address of the applicant and, if the applicant is submitting the application directly and not through an agent, the applicant's daytime telephone number and e-mail address;
 - (2) The name, mailing address, daytime telephone number, and email address of the applicant's agent;
 - (3) If the applicant is not the ISDS owner, the name and mailing address of the ISDS owner and an explanation of the applicant's legal interest in the ISDS, such as having signed a purchase and sale agreement to acquire the structures served by the new or replacement ISDS; and
 - (4) If the applicant is not the property owner, the name and mailing address of the property owner and an explanation of the applicant's legal right to install the ISDS;
- (b) Information about the type of system for which the application is being submitted, specifically whether the system is:
 - (1) A new system;
 - (2) A replacement system or a replacement for a failed system, and if so:
 - a. Whether the system being replaced was state approved or not; and
 - b. If the system being replaced was state approved, the date of the approval to operate and the construction approval number for that system;
 - (3) A collection system for a recreational campground, and if so the construction approval number and date of the approval to operate for the previously-approved EDA; or
 - (4) Revised plans under Env-Wq 1004.08, and if so the construction approval number;
- (c) Whether prior municipal approval is required and, if so, the date of the approval and a copy of the approval letter;
- (d) Information about the subdivision status of the lot, as follows:
 - (1) If the lot is part of a pending subdivision application, the department work number for that application;
 - (2) If the lot was created as part of an approved subdivision, the name of the subdivision and the subdivision approval number; or
 - (3) If the lot does not need subdivision approval, the reason subdivision approval is not needed, as follows:
 - a. The lot was created prior to 1967;
 - b. The lot meets the applicable requirements of Env-Wq 1003.11; or
 - c. The lot was created as part of a subdivision in which all of the lots are larger than 5 acres and no portion of any lot is within the protected shoreland;

- (d) Information about the location of the lot upon which the system will be constructed, as follows:
 - (1) The county and book and page number of the deed to the current property owner, or if the property was not transferred by deed, the probate docket number if applicable; and
 - (2) The street address, including municipality, and the tax map and lot number;
- (e) The use to which the structure to be served will be used, for example residential, commercial, or industrial, and:
 - (1) If residential, whether single-family, duplex, condominium(s), manufactured housing park, or some combination thereof;
 - (2) If limited to senior housing, proof that the structure(s) to be served qualify and will be used as senior housing; and
 - (3) If commercial, whether any lots are for camping and whether a public food establishment is planned;
- (f) Design flow information, as follows:
 - (1) For residential use, the number of bedrooms in the existing or proposed structure multiplied by 150 GPD;
 - (2) For commercial, industrial, or other use, the estimated sewage load in gallons per day, determined in accordance with Env-Wq 1008.03, provided that if the estimated flow is based on metered flow, the applicant shall also provide:
 - a. The specific use and location where the flow was metered, to show that the use is as similar as possible to the proposed use, taking into consideration factors such as occupancy and frequency of use; and
 - b. Whether the calculations were done in accordance with Env-Wq 1008.03(d)(1) or (d)(2);
- (g) The type of proposed ISDS, as follows:
 - (1) Whether the system is a gravity system, a pump system, or a holding tank;
 - (2) Whether the EDA is above-ground, in-ground, or at grade;
 - (3) The type of EDA proposed, such as pipe and stone or other approved technology;
 - (4) Whether the septic tank is a treatment tank; and
 - (5) Whether the design is for a sloped site using Env-Wq 1014.09;
- (h) The water supply for the lot, whether one or more private wells or a public water system, and:
 - (1) If an existing public water system, the name of the system;
 - (2) If a proposed public water system, the proposed name of the system and the date the application required by RSA 485 was filed; or
 - (2) If one or more private wells, then for each well:
 - a. Whether the well is on or off the lot served by the well, provided that if the well is not on the lot served then a copy of the recorded easement or deeded water rights shall be submitted with the application; and
 - b. If the well is on the lot served by the well but the well radius extends off the lot, then:

1. Whether the well radius is on property that is precluded from development and the reason for the preclusion; or
 2. Whether the well radius is on a recorded easement, in which case a copy of the recorded easement shall be submitted with the application;
- (i) Whether other department permits or registrations, hereinafter called “approvals”, are required for the proposed subdivision, including but not limited to approvals for ISDS, alteration of terrain under RSA 485-A:17, groundwater discharge under Env-Wq 402, wetlands dredge and fill or construction under RSA 482-A, or shoreland activities under RSA 483-B, and if so:
- (1) Whether the application is pending or the approval has been obtained; and
 - (2) If the approval has been obtained:
 - a. The approval number, if any; or
 - b. If there is no approval number, the date the approval was issued;
 - (j) Whether any portion of the subject property is within 250 feet of the reference line of a waterbody protected under RSA 483, the Shoreland Water Quality Protection Act and, if so, whether the protected waterbody is a lake or pond, tidal area, or river or stream and the name of the waterbody;
 - (k) Whether any portion of the proposed ISDS is within 150 feet of the reference line of a waterbody protected under RSA 483, and if so, photos of the impact area;
 - (l) A list of all waivers requested from Env-Wq 1000 or Env-Wq 1400; and
 - (m) One or more plan sheets containing the information specified in Env-Wq 1003.13.

Env-Wq 1003.13 Plans Required for ISDS Applications. The plan sheets required by Env-Wq 1003.12(m) shall show the following:

- (a) A description of the lot on which the new or replacement ISDS is proposed to be installed, including:
- (1) The size of the lot, with the lot’s dimensions or a map to scale of the lot’s boundaries;
 - (2) The location of all existing and proposed buildings within 100 feet of any component of the ISDS;
 - (3) The location of each known burial site or cemetery on the lot that is within 100 feet of any component of the ISDS, which demonstrates compliance with the set-back required by RSA 289:3, III, or a statement that there is no known burial site or cemetery on the lot within 100 feet of any component of the ISDS;
 - (4) The location of each well that already exists on the lot, if any, with a statement of whether the well is planned to be used or decommissioned;
 - (5) As required by RSA 485-A:30-b, the actual or proposed location of each well to be installed on the lot and the protective radius associated with the well, or a designated area within which the well can be installed without the protective well radius extending beyond the property line and without violating any other set-back or lot loading requirements, located such that well construction equipment can reasonably reach the location; and
 - (6) The distance from each of the structures and wells identified pursuant to (2)-(5), above, to each component of the ISDS;

- (b) If the proposed ISDS or well is closer than 75 feet to a boundary, the location of:
 - (1) Each known burial site or cemetery on the adjoining lot that is within 100 feet of any component of the ISDS, which demonstrates compliance with the set-back required by RSA 289:3, III, or a statement that there is no known burial site or cemetery on the adjoining lot within 100 feet of any component of the ISDS; and
 - (2) Any known structure, well, or ISDS component within the well radius;
- (c) The location of the property in sufficient detail so that an inspector is able to locate the site, including the property's location shown on a USGS quadrangle map or other similar location plan and narrative directions for getting to the property by car which include telephone pole numbers and mileage from intersections or other readily-identifiable landmarks;
- (d) The distance and location of the nearest wetlands identified in accordance with Env-Wq 1014.06 and surface water in relation to the proposed ISDS or, if the nearest wetland or surface water is greater than 75 feet away, a statement to that effect;
- (e) A note on the plan certifying that the wetlands have been delineated in accordance with Env-Wq 1014.06 and identifying who performed the delineation and the date on which it was done;
- (f) The wetland delineation performed for the purpose of locating the EDA on the property;
- (g) The source of drinking water and the location of all proposed and existing drinking water supply pipes;
- (h) Unless the application is only to connect to an existing state-approved EDA as specified in Env-Wq 1004.08, soil data including percolation test data, test pit log, hydric soil data including hydric soil criterion and location of hydric soils and corroborated USDA-NRCS soil survey data, in accordance with Env-Wq 1014.06;
- (i) Ground surface elevations for the lot on the 1:20 scale plan showing the slope of the land at 2-foot contour intervals, to at least 75 feet from the existing or proposed structure and ISDS, including, as appropriate:
 - (1) Spot elevations to verify level lots; and
 - (2) For non-level lots, original and proposed contours, referenced to a bench-mark located near the proposed ISDS;
- (j) Subject to (o), below, details of the proposed septic tank or treatment tank, as applicable, including:
 - (1) Liquid capacity, in gallons;
 - (2) Material of construction, such as concrete, fiberglass, or plastic;
 - (3) Placement of baffles;
 - (4) Tank location on the property and depth to the top of the tank from finished grade; and
 - (5) A statement that access to the interior of the tank shall conform to Env-Wq 1010.05;
- (k) A scale plan of the proposed ISDS with construction details and dimensions on the 1:20 scale drawings, including all connections to the proposed EDA if multiple connections to a single EDA are being proposed;
- (l) If any part of the proposed ISDS is located on property other than the ISDS owner's property, or if other easements or well releases are required, copies of the recorded easement(s) or well release(s);
- (m) At least one benchmark and at least one tie point to landmarks or established reference points within 100 feet;

(n) Sill elevations, invert elevations at building exit, invert elevations at the inlet and outlet from the septic tank, invert elevations at the inlet and outlet from the distribution box, invert elevations of effluent conduits, and the bottom elevation of the bed, referenced to a benchmark;

(o) If a pump is proposed, the following information:

- (1) The make, type, capacity, and model of the sewage pump;
- (2) Details of the pump well, including pump well manufacturer, type, and size;
- (3) The make, type, and model of the pump controls, including elevations of control switches; and
- (4) Details of the discharge line, including pressure line data and siphons, and siphon chambers, when used;

(p) Details of the distribution box, if applicable, including the number of outlets and the name of the manufacturer;

(q) A cross-section of the proposed ISDS showing the lay-out of the system;

(r) Details of the proposed EDA, including:

- (1) The type and size of stone or sand, as applicable; and
- (2) The type and size of effluent conduit, if used, or the dimensions and construction details of the dry well;

(s) A statement that the effluent conduits and the bottom of the bed are level, as required by Env-Wq 1017.05(h);

(t) A statement that the effluent conduits shall be installed in accordance with Env-Wq 1017.01;

(u) A designation on the plan of all areas of exposed ledge or boulders greater than 6 feet in diameter within 75 feet of the proposed EDA;

(v) A statement signed by the applicant certifying that the plan conforms to:

- (1) The requirements of 44 CFR 60.3(a)(6)(ii), if within a special flood hazard area; and
- (2) All applicable local septic system ordinances and regulations;

(w) The location of any part of the lot that lies within a special flood hazard area;

(x) The location of any part of the lot that is subject to deeded rights of flowage;

(y) If the application is being submitted for a replacement ISDS, whether pursuant to RSA 485-A:33, IV or otherwise, the following additional information:

- (1) The opinion of the permitted designer as to why the existing ISDS needs to be repaired or replaced or, if the application is submitted directly by a homeowner for the homeowner's own domicile, the opinion of the homeowner;
- (2) The type of water supply serving the structure(s) that the existing ISDS serves;
- (3) The number of structures served by the existing ISDS and the number of bedrooms in each, as confirmed by town records;
- (4) The type of appliances and fixtures by which wastewater is generated, including but not limited to dishwashers, washing machines, jacuzzis, hot tubs, toilets, showers, water treatment systems, and garbage grinders;

- (5) The best available information concerning the existing ISDS, including its approximate age, size, and materials of construction; and
- (6) The size and type of septic tank, and if the septic tank is being replaced, the size and type of the new septic tank;
- (z) If the lot is within the protected shoreland, the following additional information:
 - (1) The reference line;
 - (2) The primary building line;
 - (3) The distance and location of nearest protected waterbody in relation to the ISDS unless the nearest protected waterbody is greater than 125 feet away; and
 - (4) A designation on the plan of the limits of the natural woodland buffer; and
- (aa) The design intent, stated clearly on the plan using the statement in (1), below, together with the statement in (2)a., b., or c., below, as applicable, with the distance inserted if (2)b. or c. is used:
 - (1) “The bottom of the bed shall be constructed at ____ elevation”; and
 - (2) “The elevation of the high contour of the designed bed is:
 - a. at existing ground level”;
 - b. approximately ____ ft. above existing ground level”; or
 - c. approximately ____ ft. below existing ground level”.

Env-Wq 1003.14 Ledge Lot Specifications. In addition to the requirements for an ISDS application established in Env-Wq 1003.12, the applicant designing an ISDS for a ledge lot shall:

- (a) Specify the type of fill to be used to raise the bed to the appropriate height;
- (b) Specify the method of stabilization of the fill, including compaction method, layering, wetting, and stabilization period;
- (c) Supply test pit information to verify the nature of the receiving layer, both at the EDA and down-slope from the proposed EDA, as specified in Env-Wq 1006.04;
- (d) Show on the plan all bedrock exposures within 75 feet of the proposed EDA; and
- (e) Show on the plan all surface waters and drinking water supplies within 75 feet of the components of the proposed ISDS.

Env-Wq 1003.15 Confirmation of Public Water System Connection Required. For any ISDS application where the lot will be served by a public water system (PWS), the ISDS application shall include written verification from the supplier of water that connection to the PWS will be allowed.

Env-Wq 1003.16 Additional Requirements If Encroachment Waiver Requested.

- (a) Prior to submitting an ISDS application that contains a request for an encroachment waiver, the applicant shall comply with the notice requirements of RSA 485-A:30-a.
- (b) If an applicant requests an encroachment waiver for a design requirement, the requested encroachment waiver shall be clearly identified on the plans at the location where the waiver would apply.

PART Env-Wq 1004 APPROVALS; INSTALLATION; REPLACEMENT OF ISDS COMPONENTS;
EXPANSIONS

Env-Wq 1004.01 Subdivision and ISDS Application Processing.

(a) Plans and specifications for approval of a proposed subdivision or ISDS shall be submitted to the department's division of water, subsurface systems bureau either:

- (1) Electronically using the department's e-permitting system, available via the department's OneStop data and information center at <http://des.nh.gov/onestop/subsurface-epermitting.htm>; or
- (2) As an original and one copy of all documents in paper form.

(b) If the applicant submits a paper application and needs or wishes to have one or more copies of the plan showing that it has been approved, the applicant shall submit as many additional copies as are desired.

(c) The department shall act on plans and specifications that have been submitted for a proposed subdivision or ISDS as specified in RSA 485-A:31.

(d) If the plans and specifications for a proposed subdivision or ISDS cannot be approved as submitted but could be approved if supplemental or revised information were provided, the department shall notify the applicant of the deficiency(ies) and inform the applicant that if the supplemental or revised information is not submitted within 180 days, the application will be denied and discarded.

(e) If the plans and specifications for a proposed subdivision or ISDS could not be approved even if supplemental or revised information were provided, or if the applicant fails to respond to any notification that the plans or specifications are deficient within 180 days of the date of the notification, the department shall:

- (1) Deny the application; and
- (2) Discard the plans and specifications after any time for appealing the denial has expired.

Env-Wq 1004.02 Executed Easements. The applicant shall provide a copy of each executed easement to the department prior to approval if an ISDS is located on property other than that on which the building(s) served by the ISDS is/are located, unless the properties are owned by the same person.

Env-Wq 1004.03 Other State Approvals.

(a) If an ISDS construction proposal requires state approvals or permits under other state statutes in order to be constructed in accordance with the plans, but is submitted without copies of those permits or approvals, the department shall not approve the application until information is received by the department confirming that the other approvals have been obtained.

(b) Where a subdivision is proposed to be served by a new public water system, the department shall not grant subdivision approval until the source, quality, quantity, storage, and design of distribution system have received prior approval pursuant to RSA 485 and all applicable rules in subtitle Env-Dw.

Env-Wq 1004.04 Processing of Encroachment Waiver Applications; Criteria.

(a) Upon receipt of an ISDS application containing one or more requests for encroachment waivers that does not contain the information required by RSA 485-A:30-a, the department shall return the application to the applicant or applicant's agent, as applicable, with an explanation of why the application is being returned.

(b) The department shall not grant a request for an encroachment waiver if the owner of the property on which the waiver would encroach objects to the waiver, unless denial of the waiver would result in the following:

(1) Where no structure had previously been constructed on the property, the owner of the property for which the waiver is sought would be entirely precluded from developing the property as a result of the denial;

(2) Where a structure on the property has had a pre-existing use, the owner of the property for which the waiver is sought would be precluded from continuing the pre-existing use except by installing a holding tank; or

(3) Regardless of any pre-existing use of the property, denial of the waiver would result in unnecessary hardship to the owner due to special characteristics of the property.

(c) In determining whether an unnecessary hardship would result pursuant to (b)(3) above, the department shall apply those considerations applicable to decisions of a zoning board of adjustment under RSA 674:33.

(d) The department shall not automatically grant a request for an encroachment waiver if the owner of the property affected by the encroachment agrees to the encroachment, but shall proceed to review the waiver request in accordance with the criteria of Env-Wq 1001.03.

(e) Upon finding that an application containing a request for one or more encroachment waivers meets the requirements of these rules for approval, the department shall notify the applicant that the department will issue the construction approval upon receipt by the department of a copy of the recorded notice as required by RSA 485-A:30-a.

Env-Wq 1004.05 Alteration of Subdivisions After Approval.

(a) The plan for a subdivision approved by the department shall be the final plan.

(b) For a subdivision, a new application shall be submitted if any lot line changes, unless exempted by RSA 485-A:33, I - III.

Env-Wq 1004.06 Posting of Construction Approval Required. The construction approval shall be posted in a location at the site that is readily visible from a public way during construction.

Env-Wq 1004.07 ISDS Inspection Required.

(a) As required by RSA 485-A:29, I, the constructed ISDS shall not be covered or placed in operation without final inspection and approval by the department or by an authorized agent of the department.

(b) Prior to requesting an inspection, the following shall be installed in accordance with the approved plan:

(1) The complete ISDS as shown on the approved plan, unless the requirements of Env-Wq 1004.08 are met;

(2) The building foundation or other hookup to which the ISDS connects; and

(3) The well or a stake marking the location of the well as shown on the approved plans, if the lot is not served by a public water system.

(c) Inspection by the department shall not be construed as a substitute for good construction oversight practices, which shall be used throughout the construction process by:

(1) The permitted installer; or

(2) The homeowner, where the homeowner is installing the ISDS for his or her own domicile.

Env-Wq 1004.08 Alteration of ISDS After Construction Approval; When New Plans Required.

(a) The plan for an ISDS for which the department has issued a construction approval shall be the final plan unless amended plans are submitted pursuant to this section.

(b) The department shall not approve an ISDS for operation if the ISDS as installed does not match the approved plan, unless:

- (1) Amended plans, approved and stamped by the permitted designer who prepared the original approved plan, are available prior to final inspection; and
- (2) The changes are limited to one or more of the following:
 - a. One or more components of the ISDS have been moved but the footprint, configuration, and elevation of the bed are as shown on the approved plan;
 - b. The installer substituted a different brand of component for the brand of that component specified in the approved plan, except that no amended plans shall be required if the approved plans call for a specified brand “or equivalent”;
 - c. A ledge tank has been substituted for a standard tank in accordance with Env-Wq 1010.13;
 - d. An ISDS approved as a pump system has been converted to a gravity-feed system;
 - e. The well is not installed in the location shown on the approved plan but the actual location of the well does not affect the lot loading calculation; or
 - f. A septic tank is added or a single-compartment tank is replaced with a multi-compartment tank due to the installation of plumbing fixtures in a below-grade level of the structure, and the amended plans show compliance with Env-Wq 1010.01(i).

(c) The applicant shall submit a new ISDS application if the elevation of the bed bottom has changed or a waiver to very poorly drained soils or surface water is needed.

(d) If the criteria specified in (b), above, are not met but the elevation of the bed bottom has not changed and no waiver to very poorly drained soils or surface water is needed, the applicant shall submit an amended plan and waiver request, if applicable.

(e) If a new application or amended plans are submitted, the plans shall include ties to the component of the ISDS that has been relocated.

Env-Wq 1004.09 Approval to Operate for ISDS Having Multiple Connections To A Single EDA.

(a) For any ISDS designed to include multiple connections to a single EDA, approval to operate shall be given for the entire installed ISDS only if the entire EDA and all connections are installed at the time of inspection.

(b) If one or more connections to the EDA have not been installed at the time of inspection, approval to operate shall be given only for the EDA and those individual connections that have been installed in accordance with the approved plans.

(c) Any additional connections to the EDA made after approval to operate has been given shall require submission of a new application in accordance with Env-Wq 1003.

Env-Wq 1004.10 Approval to Operate for P.E.-Required ISDS.

(a) To receive approval to operate for an ISDS that is required by Env-Wq 1003.02(f) to be designed by a permitted designer who is also a licensed professional engineer (P.E.), the provisions of (b) through (d), below, shall be met.

(b) The installation of the ISDS shall be inspected throughout the building process by the permitted designer/P.E. whose stamp and seal appear on the approved plan or by an equivalently-qualified permitted designer/P.E..

(c) If the plans approved by the department identify specific inspection requirements, those requirements shall be the minimum necessary to comply with (b), above.

(d) The applicant shall submit a written certification, which has been signed by and which bears the stamp and seal of the individual who inspected the system's installation pursuant to (b), above, that the ISDS has been installed in accordance with the approved plans.

Env-Wq 1004.11 Use of Installer's Permit Number.

(a) Each permitted installer shall be responsible for all construction or other installation activities performed under his or her permit number.

(b) All construction or other installation activities conducted using a particular installer's permit number shall be performed under that installer's supervision.

(c) All construction or other installation activities shall be conducted so as to comply with applicable requirements in these rules.

Env-Wq 1004.12 Field Waivers Prohibited. No field waivers shall be granted to accommodate non-conformance with approved plans or inaccurate information on approved plans or for any other reason.

Env-Wq 1004.13 Expiration of Construction Approvals; Retention of Plans.

(a) Except as provided in (d), below, or in Env-Wq 1004.19(d), all construction approvals issued by the department shall expire as provided in (b), below.

(b) If a construction approval for an ISDS has been issued but approval to operate has not been issued, the construction approval shall expire and the department shall discard the application 4 years from:

(1) The date of the construction approval, if no request for an inspection has been received by the department; or

(2) The date of a do not backfill order, if approval to operate has not been issued due to the failure of the installer to correct deficiencies identified in the do not backfill order or the failure of the installer to notify the department that the deficiencies have been corrected and request a re-inspection.

(c) Prior to discarding an application pursuant to (b), above, the department shall send written notice of its intent to discard via first class mail or by email to the applicant and the applicant's agent, as noted on the application, with a copy to the appropriate local governing body, no less than 30 calendar days prior to discarding the application. The notice shall also state that if the department receives information that the system has been installed and put into use, the owner shall contact the department to determine whether the existing system can be approved or a new application must be submitted.

(d) If the ISDS is actively under construction when the construction approval will expire, including construction approvals granted to replace a failed system under Env-Wq 1004.19, the ISDS owner or applicant's agent may request an extension of up to 90 days past the expiration date by submitting a written request to the department. The department shall grant the extension if the request identifies the name and

address of the ISDS owner and applicant's agent, the location of the property, the construction approval number, and the estimated time required to complete the ISDS, and confirms that the ISDS is actively under construction.

Env-Wq 1004.14 Installation of Well in Undesignated Location.

(a) If the well is not installed in the location or area designated pursuant to Env-Wq 1003.12(d)(5) and the actual location does not reduce lot loading below the approved design flow, then:

(1) The procedures and requirements of Env-Wq 1008.10(b) and RSA 485-A:30-b, I(g) shall be followed; and

(2) The owner shall execute and record the standard release form described in Env-Wq 1008.12.

(b) If the well is not installed in the location or area designated pursuant to Env-Wq 1003.12(d)(5) and the actual location reduces lot loading below the approved design flow, the applicant or applicant's agent shall submit a new application for a design flow commensurate with lot loading.

Env-Wq 1004.15 Transfer of Subdivision Approvals. A subdivision approval issued under these rules shall be transferable to any future owner(s) of the property for which the approval was issued.

Env-Wq 1004.16 Transfer of Construction Approvals.

(a) The department shall transfer an unexpired construction approval for which approval to operate has not yet been issued from one owner to a new owner upon request of the new owner in accordance with this section.

(b) Prior to requesting a transfer of the construction approval, the new owner(s) shall:

(1) Read, view, and possess prior approvals, plans, and any related conditions assigned thereto; and

(2) Agree to abide by the previously-issued approvals.

(c) The new owner(s) shall submit a request for transfer in writing.

(d) The new owner(s) shall submit the following with the request to transfer the construction approval:

(1) The construction approval number;

(2) Identification of the owner(s) listed on the construction approval;

(3) Identification of the person(s) to whom the construction approval is being transferred;

(4) Recording information of the deed that transferred ownership of property, including the names of the grantor, grantee, town, county, registry and book and page numbers;

(5) The location of the property, by tax map and lot number and street address and municipality; and

(6) The following statement, agreed to and signed by the new owner(s):

"I/we, the undersigned, certify that I am/we are the present owner(s) of the property formerly of (name of former owner) and that I/we have read, viewed, and possess the prior approvals, plans, and any related conditions assigned thereto. I/we agree that I/we will abide by the previously-issued approvals. I/we fully understand that the individual sewage disposal system must be constructed in strict accordance with these plans and that no waivers to this construction approval will be allowed. Any changes will require a new submission, review, and approval prior to any construction. My/Our Title Reference is Book (number) Page (number), (County)

Registry of Deeds, and briefly is for certain land known as (brief description) situated in (town), New Hampshire.”

(e) The ISDS shall be constructed in strict accordance with the approved, transferred plans, and no waivers to this construction approval shall be allowed.

(f) Any changes to the ISDS design shall require a new submission, review, and approval prior to any construction.

Env-Wq 1004.17 Suspension or Revocation of Approvals.

(a) For purposes of this section, “approval” means a subdivision approval, construction approval, approval to operate, or waiver.

(b) Any approval issued by the department shall be issued based on the presumption that the information submitted as part of the application is true, complete, and not misleading.

(c) If, after the issuance of an approval, the department receives information indicating that information material to the approval’s issuance was not true and complete or was misleading, the department shall commence an adjudicative proceeding in accordance with Env-C 200 to suspend or revoke the approval.

(d) If as a result of the hearing the department determines that the approval would not have been issued if the true and complete information had been presented at the time of the application but that the site can be made to conform to the requirements of the rules, the department shall suspend the approval and shall reinstate the approval upon receiving proof from the permittee that the site meets the requirements of the rules for approval.

(e) If as a result of the hearing the department determines that the approval would not have been issued if true and complete information had been presented at the time of the application and that the site cannot be made to conform to the requirements of the rules, the department shall revoke the approval.

Env-Wq 1004.18 Repair or Replacement of Existing Residential ISDS.

(a) Subject to (b), below, if the effluent disposal area of an ISDS that receives only domestic sewage needs to be repaired or replaced as defined in Env-Wq 1002, the ISDS owner shall work through a permitted designer to obtain:

(1) A permit by rule for an in-kind repair or replacement as specified RSA 485-A:33, IV, reprinted in Appendix E; or

(2) A construction approval and approval to operate as otherwise provided in these rules.

(b) As specified in RSA 485-A:35, II, an individual may prepare and submit the application if the replacement ISDS will serve the individual’s own domicile.

(c) Subject to (d), below, any replacement ISDS shall be installed by a permitted installer.

(d) As specified in RSA 485-A:36, II, an individual may install the replacement ISDS if it will serve the individual’s own domicile.

Env-Wq 1004.19 Replacement of Other Existing ISDS.

(a) If an ISDS that serves a structure other than a residence or that receives anything other than sewage for disposal needs to be repaired or replaced, the ISDS owner shall work through a permitted designer to submit an application for a replacement ISDS for approval in accordance with this chapter.

(b) Any replacement ISDS approved based on an application required by (a), above, shall be installed by a permitted installer.

Env-Wq 1004.20 Replacement of Systems in Failure; Pumping Required.

(a) The owner of an ISDS in failure as defined in RSA 485-A:2, IV shall cease using the EDA so as to prevent any wastewater from flowing onto or into the ground or to the EDA, by either:

- (1) Vacating the premises served by the ISDS; or
- (2) Having a licensed septage hauler pump out the septic tank at sufficient frequencies to prevent wastewater from otherwise exiting the septic tank.

(b) If the owner elects to pump the tank in lieu of vacating the premises, the owner shall so notify the department and the local health officer and retain all pumping receipts for inspection by department staff or the health officer.

(c) All applications submitted for the purpose of correcting an ISDS in failure shall be accompanied by a written statement from the town health officer or a permitted designer confirming that the existing ISDS is in fact in failure.

(d) Subject to (e), below, construction approvals granted for replacement of an ISDS in failure shall be valid for 90 days.

(e) The department shall grant one 90-day extension if circumstances beyond the control of the ISDS owner have prevented the ISDS from being completely installed. Failure to complete construction within the approval period shall result in the invalidation of the approval.

Env-Wq 1004.21 When Installation of Replacement ISDS Required.

(a) If approval of a replacement ISDS is obtained pursuant to Env-Wq 1004.19 relative to systems in failure, the replacement ISDS shall be installed prior to the expiration of the approval as specified in Env-Wq 1004.19(d).

(b) If approval of a replacement ISDS has been obtained pursuant to these rules for any reason other than to address a system in failure as covered by (a), above, the replacement ISDS shall be installed if the existing ISDS:

- (1) Has not received construction approval and approval to operate under these rules or predecessor rules in Env-Ws 1000, unless the applicant submits documentation to show the existing ISDS was repaired or replaced in kind in compliance with requirements in place at the time the work was done; or
- (2) Fails or otherwise needs to be repaired or replaced.

Env-Wq 1004.22 Expansion, Relocation, or Replacement of Existing Structures.

(a) No construction approval or approval to operate from the department shall be required for the expansion, relocation, or replacement of any structure that meets the requirements of RSA 485-A:38, II-a, namely:

- (1) The work does not increase the load on the ISDS serving the structure;
- (2) The ISDS serving the structure received construction approval and approval to operate from the department within 20 years of the date of the issuance of a building permit for the proposed expansion, relocation, or replacement or the lot is 5 acres or more in size;

(3) If the property is nonresidential, no waivers were granted in the construction approval or approval to operate of any requirements for total wastewater lot loading, depth to groundwater, or horizontal distances to surface water, water supply systems, or very poorly drained soils; and

(4) The proposed expansion, relocation, or replacement complies with the requirements of the shoreland water quality protection act, RSA 483-B, if applicable.

(b) Subject to (c), below, any expansion, relocation, or replacement of a structure that does not meet the requirements of RSA 485-A:38, II-a shall be considered new construction, for which an application for an ISDS to serve the structure shall be submitted in accordance with Env-Wq 1003.

(c) The expansion, relocation, or replacement of a structure shall not be considered new construction under (b), above, if:

(1) The ISDS serving the structure received construction approval and approval to operate from the department more than 20 years before the date of the issuance of a building permit but otherwise meets the criteria specified in (a), above; and

(2) The footprint of the structure will not change.

(d) For property in the protected shoreland, no structure shall be replaced, relocated, or expanded without the owner first determining that such replacement, relocation, or expansion will not violate RSA 483-B.

Env-Wq 1004.23 Expansion of Existing Use, Including Conversion to Full-Time Occupancy.

(a) As required by RSA 485-A:38, I, the owner of a structure shall submit an application for approval of an ISDS to serve the structure prior to expanding the structure, changing the use of the structure, or occupying an existing structure on a full-time basis, such that the load on the ISDS would be increased over the design capacity of the existing ISDS.

(b) Prior to submitting an application pursuant to (a), above, the owner shall work with a permitted designer to determine whether the ISDS serving the structure is a state-approved ISDS that:

(1) Meets the requirements of Env-Wq 1000 in effect at the time the expansion or conversion, as applicable, is proposed;

(2) Is sized to accommodate the proposed use;

(3) Does not need to be modified, such as by adding a gravity grease interceptor; and

(4) Meets the minimum standards for use or occupancy of the town or city in which the property is located or the department.

(c) No application for a new ISDS shall be required if:

(1) The ISDS serving the structure meets the criteria specified in (a), above; and

(2) The property is not within the protected shoreland.

(d) If the criteria of (c), above, are not met, the property owner shall work with a permitted designer to submit an ISDS application in accordance with Env-Wq 1003, except that if the structure on the property is the property owner's domicile, the property owner may submit the application directly as allowed by RSA 485-A:35, II.

Env-Wq 1004.24 Full-Time Use or Occupancy. An existing structure shall be considered to be used or occupied full-time, and so not subject to RSA 485-A:38, if, prior to January 1, 1990, it:

(a) Had been occupied for 9 or more months out of 12 consecutive months; or

(b) It met all of the following criteria:

- (1) The structure had and continues to have insulation;
- (2) The structure had and continues to have a heating system;
- (3) The structure was and continues to be served by a potable year-round water supply;
- (4) The structure had and continues to have indoor plumbing and a wastewater disposal system that does not discharge untreated waste water directly to the ground, to surface waters, or to groundwater; and
- (5) The structure was and continues to be served by an AC electric power supply.

PART Env-Wq 1005 SUBDIVISIONS

Env-Wq 1005.01 Purpose. Subdivision rules are to assure to the greatest extent possible that each lot in a subdivision or the property on which a condominium is proposed can sustain on-site sewage disposal indefinitely so that the purposes expressed in RSA 485-A:1 and Env-Wq 1001.01 can be achieved and smart growth can be encouraged, pursuant to RSA 9-B:3.

Env-Wq 1005.02 Lot Size.

(a) Each lot created after September 1, 1989 shall contain not less than the area required for the greater of:

- (1) A wastewater load of 600 GPD, if for single-family residential use; or
- (2) The wastewater load calculated for the proposed use in accordance with Env-Wq 1008.03, if for a use other than single-family residential.

(b) Lot size shall be calculated on the basis of the site loading for each soil type on the lot, subject to the following:

- (1) In all cases, the lot shall contain a minimum of 20,000 contiguous square feet (ft²) of soil suitable for a receiving layer;
- (2) At least 4,000 ft² of the contiguous area shall meet all applicable requirements for the placement of an ISDS; and
- (3) For lots on which the primary use is not single-family residential, the area required by (a)(2) shall contain one or more areas on which one or more EDAs designed to accept the proposed flow can be installed.

(c) To show the suitable contiguous area, the applicant shall:

- (1) Show the area on the plan with the test pit;
- (2) Submit an acceptable ISDS design meeting all applicable requirements of Env-Wq 1003 and having the minimum design flow specified in (a), above; or
- (3) Submit a copy of a department-issued construction approval with approved plans and specifications, including test pit data based on Munsell Soil Color Charts, for an ISDS on the lot having the minimum design flow specified in (a), above.

(d) When test pits indicate conditions other than those derived based on USDA-NRCS soil maps, the following shall apply:

- (1) If reported soil conditions are better than indicated by the USDA-NRCS soil maps and the submitted test pit data is not consistent with the department's on-site inspection, the department

shall request new test pits for inspection by department staff to determine the soil's capability for effluent disposal; and

(2) If reported soil conditions are worse than indicated by the USDA-NRCS soil maps, the reported site conditions shall be used as a basis for calculating minimum lot size.

(e) Land created by filling with soil from off-site, as classified by the USDA-NRCS, shall be assessed on its own soil characteristics.

(f) The following areas shall not be included as available land when calculating minimum lot size, even though a lot's boundaries might include these areas:

- (1) Surface waters, including lakes, ponds, rivers, and streams;
- (2) Very poorly drained soils;
- (3) All land within the protective well radius of an on-lot well;
- (4) Any legally-established easement or right-of-way, such as for utility lines or for passage, unless:
 - a. The grantor of the easement or right-of-way reserved the right to dispose of sewage within the easement or right-of-way; and
 - b. The easement or right-of-way land area is not also counted as disposal area by the grantee;
- (5) Areas of ledge outcrop; and
- (6) Any area having a slope in excess of 35%.

(g) The slope of a lot shall be determined by finding the average slope across the lot, measured perpendicular to the contours.

(h) For lots with peaks, gullies, or ridges, a composite average slope shall be used.

Env-Wq 1005.03 Minimum Lot Sizes.

(a) The minimum lot size for any lot shall be determined in accordance with this section.

(b) Minimum lot size, in square feet (ft²), and factors for sewage loading shall be determined based on soil groups and slopes as set forth in Table 1005-1 below, subject to the notes in (c) through (e), below:

Table 1005-1: Minimum Lot Size - Residential, 1 to 4 Bedrooms; Sewage Loading Factors

Soil Group→ Slope ↓	1	2	3	4	5	6
0-8% or A/B	30,000 ft ² 1.0	39,000 ft ² 1.3	48,000 ft ² 1.6	43,500 ft ² 1.45	90,000 ft ² 3.0	See (c)
8-15% or C	33,000 ft ² 1.1	43,000 ft ² 1.43	53,000 ft ² 1.76	48,000 ft ² 1.6	Not Applicable	See (c)
15-25% or D	36,000 ft ² 1.2	46,800 ft ² 1.56	62,000 ft ² 2.08	52,000 ft ² 1.73	Not Applicable	See (c)
25-35% or E	39,000 ft ² 1.3	50,700 ft ² 1.69	72,000 ft ² 2.4	57,000 ft ² 1.90	Not Applicable	See (c)

(c) Very poorly drained soils shall not be counted toward site loading to obtain subdivision approval.

(d) For purposes of determining minimum lot sizes, soil groups shall be as follows:

- (1) Group 1 soils shall be well-drained to excessively well-drained soils with rapid permeability;
 - (2) Group 2 soils shall be well-drained soils with moderate permeability;
 - (3) Group 3 soils shall be moderately well-drained and well-drained with hardpan;
 - (4) Group 4 soils shall be bedrock relatively close to the surface;
 - (5) Group 5 soils shall be poorly-drained soils; and
 - (6) Group 6 soils shall be very poorly drained soils.
- (e) Soil group shall be:
- (1) Determined using the USDA-NRCS web soils survey (WSS), available at <http://websoilsurvey.sc.egov.usda.gov>; and
 - (2) Confirmed with one or more test pits dug as specified in Env-Wq 1006.
- (f) For individual lots served or proposed to be served by an on-site ISDS and a public water system, the lot size shall be at least 50% of the size shown in Table 1005-1 or 20,000 ft², whichever is larger.
- (g) For lots having or proposed to have an on-site water supply with off-lot ISDS, the off-lot area shall meet the required lot size established in accordance with Table 1005-1. In such cases, the lot upon which the structure will be built shall be of sufficient size to accommodate the full protective well radius established by Env-Wq 1008.06.
- (h) For lots that have or are proposed to have off-lot ISDS and off-lot public water system, local lot size regulations shall apply.
- (i) Where ledge is encountered at less than 4 feet, Group 4 soil lot sizes shall apply.
- (j) Manufactured housing park sites with on-site wastewater disposal shall be at least 10,000 ft² multiplied by the factor listed in Table 1005-1.
- (k) The minimum lot size for all other commercial and residential subdivisions shall be calculated by dividing the estimated daily flow (Q) of sewage in gallons per day by 2,000 and then multiplying by the sewage loading factor established in Table 1005-1, as indicated in the following formula:

$$\text{Lot Size} = (Q \text{ (gpd)}/2,000 \text{ (gpd/acre)}) \times \text{sewage loading factor}$$

(l) For purposes of (b), above, Q shall be the estimated daily flow calculated in accordance with Env-Wq 1008.03(c) or 600 GPD, whichever is greater, except that for campgrounds that existed prior to January 1, 1993, Q may be calculated in accordance with Env-Wq 1008.03(b) so long as no additional lots are created.

(m) Each studio or 1-bedroom apartment shall be figured as 1.5 bedrooms for sewage loading purposes, where a bedroom represents a sewage loading of 150 gallons per day.

Env-Wq 1005.04 Open Space/Conservation Subdivisions.

(a) Subject to (b), below, the total land area required for a proposed open space/conservation subdivision shall be calculated in accordance with Env-Wq 1005.04(b), where Q is the total combined estimated daily flow of sewage from all proposed structures, calculated as the number of residential structures multiplied by the design flow for each structure or 600 GPD, whichever is greater.

(b) The following shall not be included when calculating the total usable land area of the subdivision:

- (1) The full area of the protective radius of each well; and

(2) Any other areas required to be deducted pursuant to Env-Wq 1005.02.

(c) Each lot served by an on-lot ISDS shall be of sufficient size to accommodate an EDA of twice the size of the EDA required for the proposed sewage load for that lot as specified in Env-Wq 1016 and any fill extensions associated with the ISDS.

(d) Documents creating an easement for the benefit of the individual lots to permanently protect the area against development that would be inconsistent with the conservation interest instrument requirements specified in Env-Wt 807 shall be submitted to the department with the application for all land areas that:

(1) Are not part of an individual lot but are otherwise part of the total area required for sewage loading as calculated pursuant to (a), above; or

(2) Constitute the area required for the protective radius of any well.

(e) The right to use areas dedicated to off-lot ISDS for purposes of wastewater disposal shall be specifically provided by an easement in the deed to the lot. Said rights shall be worded such that they are inseparable from the deed without express written consent from the department and all other governmental agencies having jurisdictional control.

(f) Lot owner responsibility for off-lot ISDS, off-lot water supplies, or both, that are dedicated to the open space/conservation subdivision shall be clearly established in documents submitted to the department and recorded in the chain of title for each lot.

Env-Wq 1005.05 Lot Width. Each lot in a subdivision other than an open space/conservation subdivision shall be of sufficient width in the areas where the ISDS and the well are to be placed to accommodate all fill extensions specified in Env-Wq 1021.04 and the on-lot protective well radius specified in Env-Wq 1008.08.

Env-Wq 1005.06 Easements and Flowage Easements.

(a) In any subdivision where effluent disposal will not be on the same lot(s) as the structure(s) that will generate sewage or other waste, a permanent easement shall be created for sewer lines to the disposal site(s) that includes provisions for maintenance and repair or replacement of the sewer lines and ISDS.

(b) For subdivisions where sewers cross or are proposed to cross roads or rights-of-way, a perpetual utility easement shall be established across the road or right-of-way that specifically accommodates the installation, maintenance, and repair or replacement of the sewer line.

(c) No ISDS components shall be installed within areas subject to deeded rights of flowage.

Env-Wq 1005.07 Test Pits and Percolation Tests for Subdivisions. The suitability of each lot that has or will have on-site sewage disposal shall be demonstrated by test pits in accordance with Env-Wq 1006 and a percolation test at each site dedicated to sewage disposal in accordance with Env-Wq 1007.

Env-Wq 1005.08 Conversions to Condominiums.

(a) Subdivision plans shall be submitted in accordance with Env-Wq 1003 for any proposed conversion of existing developed property to condominium ownership if the resulting condominiums will not be served by a municipal sewer.

(b) Prior to receiving subdivision approval for conversion of existing developed property into condominiums, the applicant shall show either that the existing ISDS is sufficient for the proposed use, as described in (c), below, or that the property proposed to be converted to condominiums is capable of supporting a replacement ISDS, as described in (d), below.

(c) The existing ISDS shall be deemed sufficient for the proposed use if the applicant shows that the ISDS:

(1) Received construction approval and approval to operate from the department within 20 years of the date of the submission of the subdivision application; and

(2) Meets ISDS design standards in effect as of the date the subdivision application is submitted, with no waivers to:

a. The lot loading that would be required if the subdivision application is approved; or

b. Any setbacks to surface water or groundwater.

(d) The property proposed to be converted to condominiums shall be deemed capable of supporting a replacement ISDS if the applicant submits an application for approval of an ISDS in accordance with Env-Wq 1003, with no requests for waivers to lot loading or setbacks to surface water or groundwater.

(e) Drinking water supplies from groundwater aquifers for existing developed property that is to be converted to condominiums shall be protected by restricting land use and prohibiting all activity detrimental to water quality and quantity within the minimum distances established by Env-Wq 1008.05, Table 1008-3, based upon the average daily demand on the system.

(f) The protective well radius shall be preserved in accordance with Env-Wq 1008.07.

(g) The responsibility for maintenance, operation, replacement, and protection of the water supply and sewage disposal systems shall be clearly established by the condominium agreement.

Env-Wq 1005.09 Manufactured Housing Parks.

(a) Subdivision plans for a manufactured housing park shall be submitted in accordance with Env-Wq 1003 if the resulting park will not be served by a municipal sewer.

(b) Lots within manufactured housing parks shall conform to the size requirements of Env-Wq 1005.03(i).

Env-Wq 1005.10 Recreational Campgrounds.

(a) Each site within a recreational campground at which pressurized potable water hook-ups are available and which is used by the same recreational vehicle (RV) for a period of more than 3 consecutive weeks but not on a year-round basis shall be provided with an on-site sewage collection system, which shall convey the sanitary wastes from the RV to either an on-lot or off-lot ISDS approved by the department in accordance with these rules.

(b) Any site within a recreational campground that is intended for year-round use shall meet the requirements of Env-Wq 1008.03 for a single-family residence.

(c) Each site within a recreational campground at which pressurized potable water hook-ups are available and which is used by the same RV for a period of 3 consecutive weeks or less, shall not require an on-site sewage collection system, provided that sanitary service stations, sanitary service vehicles, and/or rest rooms are available at the campground to handle the disposal of all wastewater.

(d) At sites where no pressurized water is provided, the campground shall provide means of sanitary waste disposal such as sanitary service stations, sanitary service vehicles, or rest rooms, or any combination thereof.

(e) Subdivision plans for recreational campgrounds shall be submitted as specified in Env-Wq 1003.

Env-Wq 1005.11 Non-Building Lots.

(a) The purpose of this section is to accommodate the creation of lots for public purposes on which wastewater will not be generated or disposed or which do not meet the criteria established for minimum lot size under these rules. Such lots are typically created for purposes of providing public access to, or public use of, natural resources such as lakes, rivers, wildlife preserves, or parks, or to provide green space or open space in accordance with RSA 674:21-a.

(b) For purposes of this section, the following definitions shall apply:

(1) “Anti-merger clause” means a clause in a legal document such as a deed which has the legal effect of precluding the ownership of a conservation restriction from merging with the fee ownership of the land underlying the restriction in such a way as to extinguish or otherwise eliminate the restriction;

(2) “Building lot” means:

a. A proposed lot on which a building from which wastewater will discharge either:

1. Exists at the time of application for subdivision; or
2. Is intended to be erected at some time in the future; or

b. A proposed lot which meets the minimum lot size requirements of Env-Wq 1005.02, Env-Wq 1005.03, Env-Wq 1005.04, or Env-Wq 1005.06 through Env-Wq 1005.11, as applicable, regardless of whether a building from which wastewater discharges is intended to be erected;

(3) “Conservation restriction” means “conservation restriction” as defined by RSA 477:45, I, except that for purposes of this section:

a. The term is limited to the prohibition against:

1. Constructing a building from which wastewater will be discharged; and
2. Discharging wastewater to the land which is subject to the conservation easement; and

b. The easement is valid and enforceable until such time as the lot is served by municipal sewer, provided, however, that nothing herein shall prevent the easement from lasting in perpetuity if the grantor and grantee of the easement so desire;

(4) “Conservation restriction grantee” means an agency of federal, state, county, or local government or a private non-profit legal entity which has as one of its primary purposes the holding of conservation restrictions so as to preserve land in an undeveloped state; and

(5) “Non-building lot” means a proposed lot on which a building from which wastewater will discharge does not exist at the time of application for subdivision and will not be erected, that does not meet the applicable requirements of Env-Wq 1005.02, Env-Wq 1005.03, or Env-Wq 1005.05 through Env-Wq 1005.10.

(c) Any person who wishes to create one or more non-building lots as part of a subdivision otherwise subject to these rules shall comply with the requirements of this section for such lot(s).

(d) Each proposed non-building lot shall be identified on the subdivision application and plan with the words “NON-BUILDING LOT” in capital letters and in boldface type or underlined, or both, in a plain font of sufficient size to be readily noticed by the average person.

(e) Any approval of a subdivision containing one or more non-building lots shall identify the non-building lot(s) by lot number and the words "NON-BUILDING LOT" in capital letters on the subdivision approval.

(f) Notwithstanding Env-Wq 1003.06, for any proposed non-building lot(s) the applicant shall not be required to provide test pit or percolation test data for the proposed non-building lot(s).

(g) Applications for subdivisions creating one or more non-building lots which meet the requirements of (c) through (f), above, shall be approved contingent upon execution of the conservation restriction pursuant to RSA 477:3, acceptance of the conservation restriction pursuant to RSA 477:47, and recording of said conservation restriction in the chain of title of the property on which it is to be created pursuant to RSA 477:3-a.

PART Env-Wq 1006 TEST PITS

Env-Wq 1006.01 Location of Test Pits.

(a) For subdivisions where there is ledge within 4 feet of the surface, the test pit shall be in the location on which the bed is to be placed to prove that a suitable location exists.

(b) For ISDS, the test pit shall be dug within 20 feet of the edge of the proposed bed, in a location that has the same soil and slope conditions as the proposed bed location.

Env-Wq 1006.02 Depth of Test Pits. The test pit shall be of sufficient depth to inspect soil to 4 feet below the bottom of the proposed bed location.

Env-Wq 1006.03 Size of Test Pits. The test pit shall be large enough to visually inspect the soil.

Env-Wq 1006.04 Number of Test Pits.

(a) For each lot in a subdivision where ledge is encountered at less than 4 feet, the applicant shall dig test pits to satisfy the requirements of (c), below. The number of test pits shall be determined by a permitted designer, but in no event shall less than 2 test pits be dug.

(b) For ISDS, the applicant shall dig at least one test pit at each proposed effluent disposal site.

(c) For ISDS where ledge is encountered at less than 4 feet, the applicant shall dig a test pit at opposite corners of the disposal area and 35 feet down-slope of the system. If either of the down-slope test pits is less than 3 feet to ledge, then probes shall be required at a 45 degree angle from the bed corners or as required to prove receiving layer requirements.

(d) All holes dug to test the soil, except for holes dug to determine a wetland boundary in accordance with Env-Wq 1014.03, shall be considered test pits.

Env-Wq 1006.05 Test Pit Soil Description.

(a) The permitted designer shall record, for each test pit dug, a description of the predominant soil horizons, including:

- (1) Color notations based on the Munsell Soil Color Charts, 2000 edition, available as noted in Appendix B;
- (2) Soil structure;
- (3) Soil texture;
- (4) Soil consistency;

- (5) Redoximorphic features; and
- (6) Depth range for each soil horizon.

(b) The terminology used shall be in conformance with the technical standards of the USDA-NRCS National Cooperative Soil Survey, based on the Field Book for Describing and Sampling Soils: Version 3.0, National Soil Survey Center, USDA-NRCS, 2012, available as noted in Appendix B.

Env-Wq 1006.06 Recordation, Submission, and Verification of Test Pit Data.

(a) All test pit data shall be logged by or under the supervision of a permitted designer, except that a property owner may log the data on the test pit(s) for purposes of an application for an ISDS for his or her own domicile.

(b) Data for each test pit dug shall be submitted in writing to the department.

(c) Subject to (d), below, test pit data submitted to support a subdivision or ISDS application shall have been observed by the applicant or applicant's agent or a person under the direct control or supervision of the applicant or applicant's agent.

(d) Test pit data observed and logged by someone not under the direct control or supervision of the applicant or applicant's agent may be used provided the applicant or applicant's agent verifies that the data reflects current site conditions.

(e) If test pit data is submitted separately from plans and specifications, the data shall bear the stamp of a permitted designer, except that data logged by a property owner for purposes of an application for an ISDS for his or her own domicile shall bear the signature of the property owner.

Env-Wq 1006.07 Refill of Test Pits.

(a) Subject to (b), below, each test pit shall be refilled by the end of the day in which it was dug.

(b) Any test pit that will not be refilled by the end of the day in which it was dug shall be:

- (1) Covered with a solid material such as planks or plywood to prevent accidental entry into the test pit; and
- (2) Filled in as promptly as possible.

Env-Wq 1006.08 Additional Test Pits Required.

(a) The department shall require a new test pit to be dug for inspection by the department if the data submitted for a test pit as part of an application is internally inconsistent or is inconsistent with any other information received by the department.

(b) The department shall require additional test pit(s) to be dug or test probe(s) to be performed if the data submitted pursuant to Env-Wq 1006.04(a) is insufficient to demonstrate that a lot or proposed lot satisfies the requirements of Env-Wq 1005.02 and Env-Wq 1005.03.

PART Env-Wq 1007 PERCOLATION TEST

Env-Wq 1007.01 Location of Percolation Test.

(a) A percolation test shall be conducted in undisturbed soil in the location of the proposed effluent disposal area.

(b) If more than one test is conducted, the test holes shall be spaced at least 20 feet apart.

Env-Wq 1007.02 Depth of Percolation Test.

- (a) The percolation test shall be conducted in the most restrictive permeable soil horizon above the seasonal high water table and below the A horizon.
- (b) Where no A horizon exists, the percolation test shall be taken in the most restrictive layer above the seasonal high water table.

Env-Wq 1007.03 Distance from Test Pits. The percolation test shall be at least 5 feet from any test pit to assure that it is conducted in undisturbed soil.

Env-Wq 1007.04 Size of Test Hole. The percolation test hole shall be dug with horizontal dimensions of from 4 to 12 inches and vertical sides to at least 14 inches into the soil layer specified in Env-Wq 1007.02.

Env-Wq 1007.05 Percolation Test Procedures. Subject to Env-Wq 1007.06, the individual conducting the percolation test shall:

- (a) Remove any smeared soil surfaces and provide a natural soil interface into which water will percolate;
- (b) Remove all loose material from the hole;
- (c) Add 2 inches of coarse sand or fine gravel to protect the bottom of the hole from scouring and sediment;
- (d) Fill the hole with clear water to a minimum depth of 12 inches over the gravel and maintain water in the hole for at least 2 hours, or until the drop in water as measured in accordance with (e), below, reaches steady state;
- (e) Determine the rate of water loss 2 hours after water is first added to the hole to insure that the soil is given ample opportunity to swell and to approach the condition it will be in during the wettest season of the year;
- (f) Add clear water to bring the depth of water in the hole to approximately 6 inches over the gravel, after the rate of water loss has stabilized;
- (g) Measure the drop in water level from a fixed reference point, at approximately 10 minute intervals for one hour, refilling 6 inches over the gravel as necessary; and
- (h) Use the drop that occurs during the final 30-minute period to calculate the percolation rate.

Env-Wq 1007.06 Percolation Tests in Sandy Soils. The soaking procedure described in Env-Wq 1007.05(d) and (e) shall not be required in sandy soils containing little or no fines, but the test may be made after the water from 2 fillings of the hole has completely seeped away.

Env-Wq 1007.07 Size of Bed. The size of the bed shall be based on the percolation rate taken in the soil layer specified in Env-Wq 1007.02.

PART Env-Wq 1008 DESIGN REQUIREMENTS FOR ALL SYSTEMS

Env-Wq 1008.01 Lot Loading.

- (a) Unless otherwise allowed by this section, the maximum allowable loading of sewage for subsurface disposal shall be 2,000 gallons per day (GPD) per acre with the best soil and slope conditions, with loading for a specific lot determined based on soils and slopes as specified in Env-Wq 1005.03.

(b) An existing ISDS may be replaced with an ISDS designed for the same sewage load even if the lot does not meet the size requirement established as specified in (a), above, provided that:

- (1) The existing ISDS is a state-approved system installed after the applicable date in Env-Wq 1003.11(a); and
- (2) The sewage load has not increased and is not proposed to increase.

(c) If an existing ISDS serving the ISDS owner's domicile cannot be replaced under (b), above, and is on a lot that does not meet the size requirements for the existing use, the ISDS may be replaced with an ISDS designed for the existing use if the ISDS owner demonstrates that the existing use has not changed since September 1, 1989, by providing:

- (1) A town property tax record for 1989 or earlier that is authenticated by a current official of the town; or
- (2) A sworn, notarized affidavit that the existing use has not increased from the use existing as of September 1, 1989 from an individual unrelated to the current ISDS owner who:
 - a. Owned the structure served by the ISDS prior to September 1, 1989; or
 - b. Has personal knowledge of the use of the structure prior to September 1, 1989 in an official capacity, such as by being a tax assessor or code enforcement officer.

(d) The maximum sewage loading for an undeveloped lot created prior to September 1, 1989 shall be the loading determined as specified in Env-Wq 1005.03 or 300 GPD, whichever is greater.

(e) An undeveloped lot created prior to September 1, 1989 for which the maximum loading under (d), above, is 300 GPD shall be eligible for approval of an ISDS only if:

- (1) The building on the lot is strictly residential, as defined in Env-Wq 1002;
- (2) The ISDS proposed for the lot meets all other applicable requirements in Env-Wq 1000;
- (3) The application is accompanied by:
 - a. Proof that the lot was created in accordance with RSA 149-E or RSA 485-A; or
 - b. Deed(s) demonstrating that the lot was created prior to the dates specified in Env-Wq 1003.11(a)(1), (2), or (3), as applicable;
- (4) The plan indicates that low-flow fixtures must be installed in the building;
- (5) The lot is restricted to sewage flows of 300 GPD for 2 bedrooms; and
- (6) The plan shows the footprint of the proposed residence.

(f) If approval is issued pursuant to (e), above, the property owner shall record the approval showing that the sewage loading is limited to 300 GPD at the registry of deeds for the county in which the property is located in the chain of title for the property.

(g) A condominium that meets the criteria of Env-Wq 1003.11(c) and that does not meet the loading criteria of (a), above, shall be eligible for approval of an ISDS to replace an existing ISDS only if:

- (1) The fixtures in each condominium unit are low-flow fixtures or will be replaced within 90 days of the issuance of construction approval with low-flow fixtures; and
- (2) There will be no expansion of the condominium or of the size or use of the individual units in the condominium.

Env-Wq 1008.02 System Capacity; Number of EDAs; Minimum Design Flow.

- (a) The maximum allowable design capacity for an ISDS without a groundwater discharge permit as required under RSA 485-A:13 or RSA 485-C shall be 20,000 GPD.
- (b) A system with design capacity of at least 2,500 GPD but no more than 5,000 GPD shall have at least 2 EDA separated by at least 10 feet, provided that the EDA may be a single field if a mounding analysis is submitted to show that the applicable separation distance to SHWT will be maintained.
- (c) A system with a design capacity of more than 5,000 GPD shall have at least 2 EDA that are:
- (1) Separated by at least 10 feet; and
 - (2) Each designed for a flow of not more than 5,000 GPD.
- (d) No ISDS shall be designed to accommodate a sewage flow of less than 300 GPD, whether for commercial or non-commercial uses.

Env-Wq 1008.03 Daily Flow Volume.

- (a) In order to determine the appropriate size of the septic system components, such as the septic tank, pipe, and bed, the daily flow volume of sewage in gallons per day shall be determined as specified in this section.
- (b) For existing uses, flow shall be based on:
- (1) Metered water readings for the use as specified in (d), below, if available; or
 - (2) The unit design flows listed in Table 1008-1.
- (c) For new uses, flow shall be based on:
- (1) The unit design flows listed in Table 1008-1; or
 - (2) Metered water readings for uses that are as similar as possible to the proposed use, taking into consideration factors such as occupancy and frequency of use, determined as specified in (d), below.
- (d) Design flows based on metered water readings shall be calculated:
- (1) By finding the average of water meter readings over a period of time that is representative of the volume of water used and multiplying the average by a minimum peaking factor of 2 for commercial light flow or a maximum peaking factor of 3 for commercial heavy flow; or
 - (2) By measuring not less than 6 months of consecutive daily meter readings, including the month(s) of heaviest use for uses that are seasonal in nature, and using the highest daily flow without application of a peaking factor;
- (e) The unit design flow figures referenced in (b) and (c), above, shall be as listed in Table 1008-1, below, subject to (f), below:

Table 1008-1: Unit Design Flow Figures

Use	Unit Design Flow
AIRPORTS	5 GPD/Transient plus 10 GPD/Employee
APARTMENTS	See Dwellings
BARS, LOUNGES	See Food Service
BED & BREAKFAST	60 GPD/Guest, based on the greater of 2 guests per room or the actual number of guests the room is designed to accommodate, plus 10 GPD/Employee

Use	Unit Design Flow
BUNKHOUSE	60 GPD/Person
CAMPS:	
Campground with Central Comfort Station	45 GPD/site, plus 20 GPD/Site for the dump station
Recreational Campgrounds with 3-way hookups	60 GPD/Site
Construction Camps	50 GPD/Person
Day Camps (not including meals)	15 GPD/Person
Dining Facility	3 GPD/Person/meal
Residential Youth Recreation Camps	25 GPD/Person plus 3 GPD/Person/meal
CATERERS – Function Rooms	12 GPD/patron
CHURCHES:	
Sanctuary Seating	3 GPD/Seat
Church Suppers	12 GPD/Seat
COUNTRY CLUBS – PRIVATE	
Dining Room	10 GPD/Seat
Snack Bar	10 GPD/Seat
Locker & Showers	20 GPD/Locker
DAY CARE CENTERS	10 GPD/Person
DENTISTS	10 GPD/Chair plus 35 GPD/Staff Member
DOCTOR’S OFFICES	250 GPD/Doctor
DOG KENNELS	50 GPD/Kennel, with one dog per kennel
DWELLINGS:	
Apartment - Studio or One-Bedroom	225 GPD
Apartment - 2 or More Bedrooms	150 GPD/Bedroom
Residence - Single-Family	300 GPD plus 150 GPD for each bedroom over 2
Residence - Duplex	300 GPD plus 150 GPD for each bedroom over 2 for each unit
Rooming House – With Meals	60 GPD/Person
Rooming House – Without Meals	40 GPD/Person
Senior Housing	See Senior Housing
FACTORIES (Exclusive of Industrial Waste):	
Without Cafeteria or Showers	10 GPD/Person
With Cafeteria, No Showers	15 GPD/Person
With Cafeteria and Showers	20 GPD/Person
Warehouses	10 GPD/Person
FIRE STATIONS – Without full-time employees; without floor drains or food preparation	5 GPD/Person
FOOD SERVICE:	
Cafeteria or table service, plus toilet and kitchen waste	40 GPD/Seat plus 20 GPD/Employee
Cafeteria or table service, paper service, plus toilet and kitchen waste	20 GPD/Seat plus 20 GPD/Employee
Ice cream dipper	100 GPD/dipper plus 20 GPD/Employee
Kitchen Waste only	3 GPD/Meal served plus 20 GPD/Employee
Bars and lounges	20 GPD/Seat plus 20 GPD/Employee
Function Rooms	12 GPD/Seat plus 20 GPD/Employee
GYMS	10 GPD/participant plus 3 GPD/Spectator seat
HAIRDRESSERS	150 GPD/Chair plus 20 GPD/Employee
HOSPITALS	200 GPD/Bed plus 20 GPD/Employee
HOTELS AND MOTELS	200 GPD/Room plus 10 GPD/Employee
INSTITUTIONS OTHER THAN HOSPITALS	See Residential Institutions
LAUNDROMATS, COIN-OPERATED	500 GPD/Machine
LOUNGES	See Food Service, Bars/Lounges

Use	Unit Design Flow
MANUFACTURED HOUSING PARKS	150 GPD/ Bedroom/Site with 300 GPD/Site minimum
MOTELS, see HOTELS	
NURSING HOMES	125 GPD/Bed plus 20 GPD/Employee
OFFICE BUILDINGS:	
Without Cafeteria	10 GPD/Employee
With Cafeteria	15GPD/ Employee
Unspecified Office Space	5 GPD/100 ft ²
PICNIC PARKS	See Recreational Facilities
RECREATIONAL FACILITIES	
Toilet Waste Only	5 GPD/person
With Showers and Toilets	10 GPD/person
RESIDENTIAL INSTITUTIONS OTHER THAN HOSPITALS AND NURSING HOMES	135 GPD/Bed plus 20 GPD/Employee
RESTAURANTS	See Food Service
SCHOOLS:	
Boarding	100 GPD/resident student or employee plus Day School loading for non-resident students and employees
Day, Without Gym, Cafeteria, or Showers	10 GPD/student or employee
Day, Without Gyms or Showers, with Cafeteria	15 GPD/student or employee
Day, With Gyms, Showers, and Cafeteria	25 GPD/student plus 15 GPD/employee
SENIOR HOUSING	125 GPD/2 Bedroom unit, maximum 2 person occupancy
SERVICE STATIONS	75 GPD/Island plus 10 GPD/Employee
SKATING RINKS	See Gyms
SKI AREAS	See Recreational Facilities
STORES:	
Dry Goods	5 GPD/100 ft ² plus 10 GPD/employee
Supermarkets with Meat Dept. without Garbage Grinder	7.5 GPD/100 ft ²
Supermarkets with Meat Dept. with Garbage Grinder	11 GPD/100 ft ²
SWIMMING POOLS, Public	See Recreational Facilities
TENNIS COURTS	See Recreational Facilities
THEATERS	3 GPD/Auditorium Seat/Show
TOWN HALLS	5 GPD/Seat for total seating capacity
TOWN OFFICES	10 GPD/Office employee plus 5 GPD /Transient
TRAVEL TRAILER PARKS	See Camps
WAREHOUSES	See Factories

(f) For any combination of uses, such as a day camp that serves meals, a recreational facility with a cafeteria, a ski area that also has a day care, or a single-family residence with a studio or 1-bedroom apartment, the loading shall be the combined total of the loading for the separate uses.

(g) For any structure where the use is not listed in Table 1008-1, the permitted designer shall submit documentation to support the estimated maximum daily flow.

Env-Wq 1008.04 Minimum Distances.

(a) The minimum separation distance in feet between components of an ISDS and the identified receptors shall be as specified in Table 1008-2, subject to (b) through (j), below:

Table 1008-2: Minimum Separation Distances (in Feet)

Receptor↓	Component→	Septic Tank	Bed	Sewer Line
Surface Water		75	75	
Poorly Drained Jurisdictional Wetland		50	50	
Very Poorly Drained Jurisdictional Wetland		75	75	
Open Drainage		75	75	
Culvert, Tight Pipe		10	25	
Catch Basin		35	35	
Reservoir		75	75	
Water Lines, pressure		10	25	10
Water lines, suction		50	50	50
Property lines		5	10	5
Foundation, any type, with Foundation Drains		5	15	
Foundation, full cellar, without Foundation Drains		5	10	
Foundation, slab, without Foundation Drains		5	5	
Foundation Drains Outfall Pipe (Solid)		5	5	
Foundation Drain Outfall (Discharge)		25	25	
Top of Natural Embankment or Natural Steep Slope		5	20	
Stormwater Pond intercepting SHWT		50	75	
Stormwater Pond not intercepting SHWT		25	35	
Geothermal well, open loop		75	75	
Geothermal well, closed loop		25	25	
Upgradient swale to divert surface water from EDA not intercepting SHWT, below finished grade of EDA		10	25	
Upgradient swale to divert surface water from EDA not intercepting SHWT, above finished grade of EDA		10	10	
Upgradient interceptor drain intercepting SHWT to divert groundwater from EDA			25	
Outfall of upgradient interceptor drain intercepting SHWT to divert groundwater from EDA			75	

(b) In-ground swimming pools shall not be located within 35 feet down-slope of a bed or within 10 feet in any direction of a bed.

(c) The distance between a septic tank and surface water, open drainage, very poorly drained soil, an open loop geothermal well, or a private on-site well may be reduced to 50 feet if:

- (1) Pipe having an SDR of 26 or equivalent is used; and
- (2) The tank is either made from plastic or coated with a sealant to prevent infiltration and exfiltration.

(d) The distance between a septic tank and open drainage or between a bed and open drainage may be reduced to 25 feet or 35 feet, respectively, where the open drainage and associated culverts, such as a roadside ditch, does not intercept the seasonal high groundwater.

(e) The distance between a water line and a bed may be reduced to 10 feet, and the distance from a water line to a septic tank may be reduced to 5 feet, if the waterline is sleeved in continuous length SDR 35 pipe or equivalent, to the distance specified in Table 1008-2.

(f) For any well for which a wellhead protection area has been established pursuant to RSA 485-C, the distance between the well and the septic system components shall be as established in Env-Ws 378 or successor rules in subtitle Env-Dw.

(g) For purposes of approving a replacement ISDS serving a residence on a lot created after September 1, 1989, where the ISDS components cannot be installed in accordance with Table 1008-2, above, due to the residence being constructed in other than the location shown when the original approval was issued, the separation distances shall be as close to the specified distance as possible.

(h) A septic tank, pump chamber, or bed may be closer than 25 feet to the foundation drain where:

- (1) The bottom of the cellar is at least 18 inches above the seasonal high water table; or
- (2) The basement slab is at a higher elevation than the finished grade of the bed.

(i) Set-backs to known burial sites, burial grounds, and cemeteries shall comply with RSA 289:3, III, which prohibits new construction, excavation, and building within 25 feet of a known burial site or within 25 feet of the boundaries of an established burial ground or cemetery, subject to local regulations.

(j) Set-backs to water supply wells shall be determined as specified in:

- (1) The approval issued under Env-Dw 300 for public water supply wells; or
- (2) Table 1008-4 in Env-Wq 1008.06 for private water supply wells, whether commercial or non-commercial.

Env-Wq 1008.05 Nitrate Setbacks to Property Lines.

(a) The bed shall be located at or beyond the minimum distances from property lines as shown in Table 1008-3, below.

(b) Groundwater easements on abutting property may be used to meet setback distance requirements.

(c) An applicant may request a reduction in one or more of the minimum nitrate setback distances by submitting a hydrogeological analysis of the property demonstrating that the requirements of Env-Wq 402 will be met. If the department determines that the analysis validly demonstrates that the minimum specified nitrate setback distance is not required and the discharge is not prohibited by Env-Wq 402, the department shall approve a reduced setback.

(d) For non-aggregate flows of up to 999 GPD, the setback distance to any property line shall be as specified in Table 1008-2.

(e) If 2 or more EDA are proposed for a single lot and the total combined design flow equals 1,000 GPD or more, the setback distances for each bed shall be determined as follows:

- (1) For any bed that is within the setback distance specified in (f), below, or Table 1008-3, below, as applicable, of any other bed on the same lot, the setback distances for both beds shall be as specified in Table 1008-3, below, for the total combined flow to the beds; and
- (2) For any bed that is not within the setback distances specified in (f), below, or Table 1008-3, below, as applicable, of any other bed on the same lot, the setback distances for that bed shall be based on the flow to that bed, as follows:
 - a. If flow to the bed is less than 1,000 GPD, the distances to property lines shall be as specified in (d), above; or
 - b. If flow to the bed is 1,000 GPD or more, the distances to property lines shall be as specified in Table 1008-3, below.

(f) For purposes of determining whether a bed is within the setback distances of another bed on the same lot where the flow to one or both of the beds is less than 1,000 GPD, the setback distances shall be as follows:

- (1) If the bed is hydraulically down-gradient, 50 feet;

- (2) If the bed is hydraulically side-gradient, 25 feet; and
- (3) If the bed is hydraulically up-gradient, 12 feet.
- (g) Minimum nitrate setback distances to property lines and for use when determining whether (e)(1) or (e)(2), above, applies shall be as follows:

Table 1008-3: Minimum Nitrate Setback Distances (in feet)

Design Flow, GPD	Hydraulically Down-gradient	Hydraulically Side-gradient	Hydraulically Up-gradient
1,000-1,100	55	28	14
1,101-1,200	60	30	15
1,201-1,300	65	33	17
1,301-1,400	70	35	18
1,401-1,500	75	38	19
1,501-1,600	80	40	20
1,601-1,700	85	43	22
1,701-1,800	90	45	23
1,801-1,900	95	48	24
1,901-2,000	100	50	25
2,001-2,100	105	53	27
2,101-2,200	110	55	28
2,201-2,300	115	58	29
2,301-2,400	120	60	30
2,401-2,500	125	63	32
2,501-3,000	150	75	37
3,001-3,500	175	88	44
3,501-4,000	200	100	50
4,001-4,500	225	113	57
4,501-5,000	250	125	63
5,001-6,000	275	138	69
6,001-7,000	300	150	75
7,001-8,000	320	160	80
8,001-9,000	340	170	85
9,001-10,000	350	175	88
10,001-15,000	435	213	107
15,001-19,999	500	250	125

Env-Wq 1008.06 Protective Well Radii - Distance.

(a) A protective area designated as the “protective well radius” shall be maintained around every private commercial or non-commercial drinking water well.

(b) Subject to Env-Wq 1008.08, the protective area shall be a uniform circle having a radius determined based on the total proposed daily sewage flow, as set forth in Table 1008-4, below:

Table 1008-4: Protected Well Radii for Shallow or Dug Wells or Drilled Bedrock Wells

Daily Sewage Flow (GPD)	Radius (ft.)
0-750	75
751-1440	100
1441-4320	125
4321-14,400	150
14,401-28,800	175

Daily Sewage Flow (GPD)	Radius (ft.)
28,801-57,600	200
57,601-86,400	250
86,401-115,200	300
115,201-144,000	350
greater than 144,001	400

(c) A protective well radius that is fully recognized or accorded full recognition by these rules means that the radius shall not be reduced or encroached upon by any septic system component on an abutting lot.

Env-Wq 1008.07 Protective Well Radii - Uses.

(a) Unless precluded by other state or local regulation, the land surface within a protective well radius may be used for the normal residential or commercial surface activities associated with the structure served by the well, such as buildings, parking areas, recreational activities, and surface water drainage control structures.

(b) No portion of a septic tank, bed, pump chamber, or other such ISDS component shall be within a protective well radius that is accorded full recognition pursuant to Env-Wq 1008.08, except as allowed by Env-Wq 1008.04(c). Pipes connecting such components may be within the protective well radius provided they have an SDR of 26 or equivalent.

Env-Wq 1008.08 Recognized Extent of Protective Well Radii.

(a) Pursuant to RSA 485-A:30-b, I(b) and (c), the protective well radius shall be contained wholly within the boundaries of any lot created after August 20, 1989, and shall be contained wholly within the boundaries of an existing lot of record to the extent possible. Any protective well radius wholly on the lot shall be accorded full recognition. Where the protective well radius extends across the property line, the portion of the protective well radius on the lot shall be accorded full recognition.

(b) Any portion of a protective well radius extending across a property line onto an easement duly granted by the owner of record of the abutting property and recorded in the registry of deeds for the county in which the property is located shall be accorded full recognition. A copy of the recorded easement shall be submitted with the application.

(c) Any portion of a protective well radius extending across a property line onto land that is precluded from development shall be accorded full recognition without a deeded right to use the abutting property, provided that:

- (1) The use of the abutting property is clearly identified on the plan; and
- (2) The applicant submits a copy of evidence of the development preclusion of the abutting land, as described in (d), below, with the application.

(d) For purposes of (c), above, evidence of development preclusion shall be determined with reference to the reason why the land is precluded from development, as follows:

- (1) Land identified in RSA 227-H:5 shall be evidenced by a copy of the relevant statutory section;
- (2) Land held under the terms of RSA 227-M where the deed precludes development of buildings or subsurface waste disposal systems within the affected area shall be evidenced by a copy of the deed;
- (3) Any surface water or area of very poorly drained soil shall be evidenced by a copy of the portion of a map locating the surface water or very poorly drained soil; and

(4) Any wetland shall be evidenced by a certification from a permitted designer.

(e) Any protective well radius that extends onto an area precluded from development by other than a recorded easement for the protective well radius shall no longer be recognized by the department as protected if conditions on the abutting lot change to allow development.

Env-Wq 1008.09 Overlapping Protective Well Radii. Owners of abutting lots may agree to overlap their respective protective well radii for their mutual benefit. In order for the well radii to be accorded full recognition, any such agreement shall be evidenced by cross-easements which shall be duly executed and recorded.

Env-Wq 1008.10 Non-conforming Protective Well Radii.

(a) Protective well radii shall conform to the requirements in RSA 485-A:30-b.

(b) When the well cannot be installed as shown on the plan due to obstacles of a permanent nature, and the well radius cannot be maintained on-lot or on an area designated in Env-Wq 1008.08 as a result of the alternative placement, the property owner shall, as required by RSA 485-A:30-b, I(g), submit to the department a copy of the amended plan and the recorded standard release form pursuant to Env-Wq 1008.12. The standard release form shall provide written acknowledgment that the consequences of the alternate well location are fully understood by the owner or the owner's agent prior to well installation. Buildings constructed prior to the installation of the well or naturally-occurring geological or topographical features such as ledge outcrops or ravines, which prevent the well construction apparatus from being brought to the designated location, shall be considered obstacles of a permanent nature.

Env-Wq 1008.11 Recordation of Descriptive Location of Well.

(a) Any time the recognized protective well radius is less than the radius specified in Env-Wq 1008.06, the applicant shall record a narrative description of the actual location of the well which shall include distances and directions from at least 2 permanent features of the lot, such as an iron pin marking a corner boundary or structure foundation.

(b) The description so prepared shall:

- (1) Comply with the requirements of RSA 478:4-a; and
- (2) Be recorded by the owner in the chain of title to the property.

Env-Wq 1008.12 Standard Release Form for Protective Well Radii.

(a) The applicant shall provide the following on the standard release form:

- (1) Whether the release is being executed because the well has been moved from the location shown on the approved plan or because the well does not fit on an existing lot of record;
- (2) The name and current mailing address of each owner of the lot;
- (3) The location of the property, including street address, town, county, tax map and lot number, and current deed reference;
- (4) If applicable, the subdivision approval number and construction approval number;
- (5) A statement that each owner understands that the well will be located closer than the recommended extent of a protective well radius to the property line;
- (6) A statement that each owner understands that current state law does not protect the well beyond the boundary of the property and that the rules of the department allow an individual sewage disposal system to be installed as close as 10 feet to the property line, which might result

in an individual sewage disposal system on abutting property being installed closer than 75 feet to the well;

(7) A statement that each owner understands that s/he cannot prevent an individual sewage disposal system from being installed on abutting property within 10 feet of the property boundary solely on the basis of the well location;

(8) A statement that each owner understands that with proper well construction, including drilling the well into bedrock, casing the well, and sealing the casing, the risk of contamination from any individual sewage disposal system closer than 75 feet to the well can be minimized; and

(9) A statement that each owner understands that s/he might have no recourse against the State of New Hampshire or any owner of the abutting property if the well becomes contaminated due to the decreased set-back distance.

(b) Each owner of the property shall sign and date the release form and shall cause the form to be recorded at the appropriate registry of deeds.

(c) The owner(s) of the property shall submit a copy of the recorded executed release form to the department and, if requested, to the local code enforcement officer or other local official designated by the municipality.

Env-Wq 1008.13 Easements and Flowage Easements.

(a) If effluent disposal is proposed to be on a lot other than the lot having the structure(s) that generate or will generate wastewater, a permanent easement shall be created for:

(1) The area that contains or will contain the EDA;

(2) All sewers to the disposal site; and

(3) Access to the EDA and sewers for maintenance and repair or replacement.

(b) If sewers cross or are proposed to cross roads or rights-of-way, a perpetual utility easement shall be established across the road or right-of-way that specifically accommodates the installation, maintenance, and repair or replacement of the sewer.

(c) No ISDS components shall be installed within areas subject to deeded rights of flowage.

PART Env-Wq 1009 SEWER LINES

Env-Wq 1009.01 Sewer Line Composition. All sewer lines not covered by the plumbing code shall be SDR 35 or stronger.

Env-Wq 1009.02 Crossing Water Lines.

(a) Subject to (b) and (c), below, where a water line must cross a sewer line, the sewer line shall be at least 18 inches below the water line.

(b) The water line may be closer than 18 inches to the sewer line if the water line or sewer line is encased in concrete or pipe having an SDR of 26 for a distance of 10 feet on both sides of the line being crossed.

(c) If placing the sewer line below the water line would require a sewage pump to be used, the sewer line may be placed above the water line provided one of the lines is sleeved as provided in (b), above.

Env-Wq 1009.03 Manholes and Clean-outs in Long Runs.

- (a) Manholes shall be provided every 350 feet in long sewer runs and at each change in slope or direction.
- (b) Manholes shall conform to standards set for municipal installations in Env-Wq 700.
- (c) When the run of a gravity sewer designed to carry solids is greater than 100 feet but less than 350 feet with no change in slope or direction such that manholes are not used, a clean-out shall be provided every 100 feet that does not have a septic tank tie-in.

Env-Wq 1009.04 Pipe Under Wheel Loads. Pipe used under wheel loads shall be:

- (a) Certified by the manufacturer or distributor, or by a P.E., as being able to withstand anticipated wheel loads;
- (b) Installed as designed; and
- (c) Buried at least 4 feet underground or insulated.

Env-Wq 1009.05 Calculating Infiltration. Sewer and manhole infiltration shall be figured into the flow figures established by Env-Wq 1008.03 for sewers over 100 feet long as follows:

- (a) Pipe infiltration shall be figured as 300 gallons per inch diameter per mile per day; and
- (b) Manhole infiltration shall be figured as one gallon per vertical foot per day.

Env-Wq 1009.06 Slope of Pipe.

- (a) The slope of the pipe from the building to the septic tank shall be not less than 2% and not more than 15%.
- (b) The pipe shall be below ground surface for not less than 5 feet leading to the septic tank inlet.
- (c) The slope of the pipe from the septic tank to the distribution box shall be not less than 1/8 inch per foot.

Env-Wq 1009.07 Plumbing Code. To the extent not specified in this part, sewer lines shall comply with the applicable provisions of the plumbing code incorporated at RSA 155-A.

PART Env-Wq 1010 SEPTIC TANKS

Env-Wq 1010.01 Liquid Capacity of Septic Tanks: Residential Up To 10 Bedrooms.

- (a) The required minimum liquid capacity of a septic tank for an ISDS serving a residence having up to 10 bedrooms shall be determined in accordance with this section.
- (b) For a single-family residence having no more than 4 bedrooms, minimum septic tank liquid capacity shall be 1,250 gallons.
- (c) For a duplex house or a duplex condominium, sometimes also called a condex, each half shall be considered a separate single-family residence for purposes of determining the minimum liquid capacity of the septic tank.
- (d) For each additional bedroom up to 10, the liquid capacity of the septic tank shall be increased by 250 gallons per bedroom.
- (e) For residential structures having more than 10 bedrooms, the liquid capacity of the septic tank shall be as specified in Env-Wq 1010.02.

(f) If a garbage grinder is or will be used in the structure served by the septic tank, the liquid capacity of the septic tank shall be increased by 50%.

(g) Subject to (i), below, where raw sewage is to be pumped into the septic tank, whether or not a garbage grinder is or will be used, then:

- (1) The liquid capacity of the septic tank shall be twice the liquid capacity otherwise required by this section or Env-Wq 1010.02, as applicable; and
- (2) The additional capacity shall be provided by using an additional tank or an additional compartment.

(h) When raw sewage is pumped only from plumbing fixtures that are below grade to the building's gravity-fed ISDS, no increase in the total liquid capacity of the septic tank shall be required if the sewage from the below-grade plumbing fixtures will be pumped by a sewage pump capable of handling 2-inch or greater solids.

(i) When raw sewage is pumped only from plumbing fixtures that are below grade to the building's gravity-fed ISDS and the provisions of (i), above, do not apply, then the total liquid capacity of the septic tank shall be increased by:

- (1) At least 250 gallons if:
 - a. Only one septic tank is used, regardless of whether it is a single- or multi-compartment tank; or
 - b. A separate septic tank is used that will connect to the main septic tank for the structure; and
- (2) At least 1,000 gallons if a separate septic tank is used that will connect directly to the EDA.

Env-Wq 1010.02 Septic Tank Capacity for Commercial and Large Residential Structures. The liquid capacity of a septic tank in an ISDS serving a commercial structure or a residential structure having more than 10 bedrooms shall be as follows:

- (a) For flows of 300 GPD to less than 600 GPD, the septic tank size shall be the same as that specified in Env-Wq 1010.01(b);
- (b) For flows of at least 600 GPD but less than 1,500 GPD, the volume shall be the greater of 1,250 gallons or 2 times the daily sewage flow;
- (c) For flows of 1,500 GPD or more, the volume shall be 2,000 gallons plus 70% of the daily flow; and
- (d) For flows of less than 300 GPD, the volume shall be not less than 1,000 gallons.

Env-Wq 1010.03 Water-Tightness of Septic Tanks.

(a) Septic tanks shall be watertight and constructed of materials, such as concrete, plastic, or fiberglass, that are resistant to corrosion, decay, and cracking or buckling due to frost, settling, or backfilling.

(b) Any septic tank constructed from separate sections shall be sealed so as to be watertight with joint sealant that has been represented by its manufacturer or distributor as conforming to ASTM C990-09.

Env-Wq 1010.04 Backfill and Bedding For Septic Tanks.

- (a) Bedding material beneath a septic tank shall:

- (1) Consist of at least 4 inches of sand or crushed stone placed on a firm and uniform base;
 - (2) Be level and compacted so as to prevent differential settling of the ground underneath the tank; and
 - (3) Not bear on boulders or rock edges or any aggregate in excess of 3 inches in size.
- (b) Backfill around a septic tank shall be:
- (1) Placed in lifts as specified by the tank manufacturer, but in no case greater than 12 inches; and
 - (2) Compacted in a manner that does not damage the structural integrity of the tank.

Env-Wq 1010.05 Access to Interior of Septic Tank.

- (a) Access shall be provided to each compartment of a septic tank for inspection and cleaning, and to each baffle within the tank for inspection and repair, by means of at least one removable cover that is:
- (1) Directly on the septic tank or on a riser, provided that if a riser is used, a cover that is directly on the septic tank may also be used; and
 - (2) Of a shape or otherwise of a construction that prevents the cover from falling into the septic tank or riser.
- (b) Of the covers required by (a), above:
- (1) At least one cover shall be not less than 20 inches but not more than 24 inches in diameter; and
 - (2) All other covers shall be not less than 12 inches in diameter.
- (c) The cover for a septic tank compartment shall be:
- (1) At or within 12 inches of finished grade, if the tank does not have an effluent filter; or
 - (2) At finished grade, if the tank has an effluent filter.
- (d) If a riser that is required to comply with (c), above, is greater than 24 inches in height, the riser and cover shall each have a diameter of not less than 24 inches.
- (e) A cover at finished grade shall be protected against unauthorized inadvertent opening, for example by locking closed, being mechanically fastened to the septic tank or riser such as with screws, or being made of cast-iron or other material that is at least equal in weight to cast iron.
- (f) The bottom of the septic tank shall not be more than 15 feet below the grade of the area where the septage pumping truck will park when the tank needs to be pumped out.
- (g) Septic tanks shall be accessible by truck to within 125 feet of the nearest road or driveway.

Env-Wq 1010.06 Septic Tank Design Requirements.

- (a) The outlet of a septic tank shall be at least 2 inches but not more than 4 inches below the inlet to the septic tank.
- (b) Any septic tank made of concrete shall be certified by its manufacturer or distributor as meeting or exceeding the following design strength requirements:

(1) If the septic tank will not be subjected to vehicular traffic and the top of the septic tank will be 3 feet or less below finished grade, the septic tank shall be designed for a minimum live load at the surface of 300 pounds per square foot plus the weight of 3 feet of unsaturated earth;

(2) If the septic tank will not be subjected to vehicular traffic and the top of the septic tank will be more than 3 feet but 6 feet or less below finished grade, the septic tank shall be designed for a minimum live load at the surface of 300 pounds per square foot plus the weight of 6 feet of unsaturated earth;

(3) If the septic tank will be subjected to vehicular traffic or if the top of the septic tank will be more than 6 feet below finished grade, the septic tank shall be designed to meet AASHTO H-20 specifications or better; and

(4) The minimum compressive strength for the concrete shall be 4,000 pounds per square inch at 28 days.

(c) Any precast concrete septic tank shall be certified by its manufacturer or distributor as meeting the applicable requirements of ASTM C1227.

(d) Any septic tank fabricated from material other than concrete shall be certified by its manufacturer or distributor as being designed for loads that are equivalent to those specified in (b)(1)-(4), above.

Env-Wq 1010.07 Inlet and Outlet Baffles.

(a) Each septic tank shall have an inlet baffle and an outlet baffle that are:

(1) Plumb and level;

(2) Secured to the inlet pipe or outlet pipe, as applicable, using stainless steel screws; and

(3) Plastic vented tees that extend above the liquid line to not less than one inch from the interior of the top of the septic tank or cover.

(b) The inlet baffle shall:

(1) Divert the incoming sewage downward; and

(2) Penetrate at least 8 inches below the liquid level, but in no case greater than the depth of the outlet baffle.

(c) The outlet baffle shall extend to a distance below the surface of the liquid equal to 40% of the liquid depth.

Env-Wq 1010.08 Pipe to Tank Connections.

(a) All connections between a septic tank and the pipes leading to and exiting from the septic tank shall be sealed with a watertight, flexible joint connector that:

(1) Will accommodate normal movement of the septic tank without leaking or breaking; and

(2) Has been certified by its manufacturer or distributor as meeting or exceeding the applicable standard in ASTM C 1644-06, section 7.

(b) The slope of the interior length of any pipe that extends into a septic tank shall not exceed the minimum pitch specified in Env-Wq 1009.06(a).

Env-Wq 1010.09 Storage Above Liquid Level; Septic Tank Dimensions.

(a) The distance between the liquid line and the interior surface of the top of the tank shall be equal to approximately 20% of the liquid depth.

(b) The interior of the septic tank shall provide:

- (1) A total liquid surface area of not less than 25 ft²; and
- (2) A total length of not less than 6 feet between the inlet and the outlet of the septic tank.

Env-Wq 1010.10 Liquid Depth.

(a) The liquid depth in any single- or multi-compartment septic tank that is not a ledge tank shall be 40 inches or more in each compartment.

(b) The liquid depth in any single- or multi-compartment ledge tank shall be 30 inches or more in each compartment.

Env-Wq 1010.11 Compartments.

(a) A septic tank used in an ISDS that does not have a pump may be separated into 2 or more compartments, provided:

- (1) The first compartment equals at least 2/3 of the required volume for the septic tank; and
- (2) The total volume of all compartments equals or exceeds the liquid capacity required by Env-Wq 1010.01.

(b) A septic tank used in a pump system may be separated into 2 or more compartments, provided:

- (1) The first compartment equals at least 2/3 of the required volume of the septic tank; and
- (2) The total volume of the compartments, exclusive of the pump chamber, equals or exceeds the liquid capacity required by Env-Wq 1010.01.

(c) If a septic tank has more than one compartment, the following shall apply:

- (1) Venting between compartments shall be provided to allow free passage of gas;
- (2) Inlet and outlet baffles shall be proportioned at the inlet and outlet as for a single-compartment tank; and
- (3) The total storage above the liquid line in each compartment shall be as specified in Env-Wq 1010.09(a).

Env-Wq 1010.12 Multiple Tanks. The septic tank liquid capacity required by Env-Wq 1010.01 or Env-Wq 1010.02, as applicable, may be attained using 2 or more tanks in series, provided that the first tank is large enough to contain at least 2/3 the total required volume.

Env-Wq 1010.13 Ledge Tanks.

(a) Subject to (b), below, a ledge tank shall be used only on a ledge lot as defined in Env-Wq 1002.

(b) A ledge tank may be used on a lot that is not a ledge lot if:

- (1) The location for the septic tank shown on the approved plan turns out to not be suitable, for example due to the presence of boulders;
- (2) There is no other suitable location for the septic tank; and
- (3) An amended plan is available at the final inspection in accordance with Env-Wq 1004.08.

(c) To ensure adequate settling of solids when a ledge tank is used, total septic tank volume shall be twice the septic tank capacity specified in Env-Wq 1010.01 or Env-Wq 1010.02, as applicable. Such additional capacity may be achieved using 2 or more ledge tanks in series.

Env-Wq 1010.14 Replacement of Septic Tanks.

(a) A septic tank may be replaced without department approval only if:

(1) The existing septic tank is replaced with one or more tanks of the same liquid capacity or larger;

(2) The replacement tank is installed in the location of the existing tank so that no waiver to any set-back is needed;

(3) The ISDS does not need to be repaired or replaced, as defined in Env-Wq 1002; and

(4) The replacement tank is installed by a permitted installer, except a homeowner may replace the tank for the homeowner's own domicile.

(b) Any septic tank(s) replaced or added as part of a replacement ISDS shall be shown on the plans submitted with the application.

(c) If below-grade plumbing fixtures are to be connected to an existing state-approved ISDS, amended plans shall be submitted as specified in Env-Wq 1004.08 if the liquid capacity of septic tank is required by Env-Wq 1010.01(i) to be increased and a septic tank is added or a single-compartment septic tank is replaced with a multi-compartment septic tank.

PART Env-Wq 1011 AERATION TANKS

Env-Wq 1011.01 Use of Aeration Tanks. If an aeration tank is used as a substitute for a septic tank, an EDA designed in accordance with these rules shall be used to dispose of the effluent.

Env-Wq 1011.02 Service Contract. The department shall not give approval to operate for an ISDS having one or more aeration tanks unless the applicant provides a copy of an executed service contract for the continued maintenance of the aeration tank(s) by a qualified service technician.

PART Env-Wq 1012 GRAVITY GREASE INTERCEPTORS AND FLOOR DRAINS

Env-Wq 1012.01 Gravity Grease Interceptors Required. A gravity grease interceptor shall be used for kitchen waste only in the ISDS serving:

(a) Any commercial facility in which any food handling and preparation occurs; and

(b) Any dwelling where food handling and preparation is undertaken for any business purpose.

Env-Wq 1012.02 Gravity Grease Interceptor Design Requirements.

(a) The gravity grease interceptor shall be sized to have a minimum hydraulic detention time of 36 hours and minimum tank size of 1,000 gallons.

(b) The outlet of the gravity grease interceptor shall be protected with a baffle that extends downward and terminates 6 to 12 inches from the inside bottom of the gravity grease interceptor.

(c) A gravity grease interceptor shall meet the requirements of:

(1) Env-Wq 1010.03 relative to being water-tight, provided that "septic tank" shall be replaced with "gravity grease interceptor"; and

(2) Env-Wq 1010.06 relative to design, provided that “septic tank” shall be replaced with “gravity grease interceptor”.

(d) All connections between a gravity grease interceptor and the pipes leading to and exiting from the tank shall be sealed with a watertight, flexible connector that:

(1) Will accommodate normal movement of the tank without leaking or breaking; and

(2) Is certified by the manufacturer or distributor as conforming to ASTM C1644.

(e) Any precast concrete gravity grease interceptor shall be certified by its manufacturer or distributor as meeting the applicable requirements of ASTM C1613.

(f) Fiber-reinforced polyester used for manufacturing gravity grease interceptors and components shall be certified by its manufacturer or distributor as meeting the applicable requirements of section 6 of IAPMO/ANSI Z1000.

(g) Thermoplastic gravity grease interceptors and components shall be certified by its manufacturer or distributor as meeting the applicable requirements of section 7 of IAPMO/ANSI Z1000.

Env-Wq 1012.03 Access to Interior of Gravity Grease Interceptor. Access shall be provided to each compartment of a gravity grease interceptor as specified in Env-Wq 1010.05, provided that “septic tank” shall be replaced with “gravity grease interceptor”.

Env-Wq 1012.04 Backfill and Bedding For Gravity Grease Interceptors. Bedding and backfill for gravity grease interceptors shall be as specified in Env-Wq 1010.04, provided that “septic tank” shall be replaced with “gravity grease interceptor”.

Env-Wq 1012.05 Floor Drains. Floor drains shall not be used unless approved pursuant to Env-Ws 1500 or Env-Wq 402.

PART Env-Wq 1013 SEWAGE PUMPS AND SIPHONS

Env-Wq 1013.01 Pump Alarms.

(a) Each sewage pump shall have a visual or audible alarm, or both, that signals if the pump fails for any reason.

(b) The alarm shall signal in a centrally-located area that is used daily.

(c) The pump(s) and the alarm system(s) shall be on separate electronic circuits.

Env-Wq 1013.02 Pump Chamber.

(a) The pump chamber shall be water-tight and vented.

(b) Venting shall be done directly or through the septic tank.

(c) The capacity of the pump chamber shall be such that the pump or siphon can be set to dose each field a minimum of 3 times per day.

(d) If duplicate pumps are not provided, the dosing chamber shall be equipped with a high water alarm that signals in a centrally-located area at the building served if the pump fails for any reason.

(e) Each pump chamber shall be accessible via a riser and cover that meet the requirements of Env-Wq 1010.05.

(f) A duplex pump chamber shall be accessible via a riser with an access hatch. The permitted designer shall specify the load-bearing requirements for the access hatch.

Env-Wq 1013.03 Siphons. The use of a single siphon shall be an acceptable method for dosing of sewage effluent. Double alternating siphons shall not be allowed.

Env-Wq 1013.04 Wiring for Pumps and Alarms. All wiring for pumps and alarms shall be done by an electrician licensed to work in New Hampshire.

PART Env-Wq 1014 EFFLUENT DISPOSAL AREAS: SOILS, SET-BACKS

Env-Wq 1014.01 Definitions. For purposes of this part, the following definitions shall apply:

(a) “Aquic conditions” means continuous or periodic saturation and reduction, as indicated, except in Histosols, by redoximorphic features, which can be verified, except in artificially drained soils, by measuring saturation and reduction.

(b) “B horizon” means a layer of soil or soil material approximately parallel to the land surface that forms below an A, E, or O horizon.

(c) “Bs horizon” means a B horizon with an accumulation of illuvial, amorphous, dispersible organic matter and sesquioxides.

(d) “Bh or Bhs horizon” means a B horizon with an accumulation of illuvial, amorphous, dispersible organic matter and sesquioxides. The sesquioxide component coats sand and silt particles. The symbol “h” is used in combination with “s” as Bhs if the amount of sesquioxide component is significant but value and chroma of the horizon are 3 or less.

(e) “Chroma” means the relative purity or saturation of a color, or its intensity of distinctive hue as related to grayness. Chroma is one of the 3 variables of color.

(f) “E horizon” means a mineral soil horizon in which the main feature is loss of organic matter, silicate clay, iron, or aluminum, or some combination of these, leaving a concentration of sand and silt particles.

(g) “Gleyed matrix” means a soil horizon matrix color resulting from prolonged periods of wetness that makes up more than 50% of the horizon or subhorizon where iron has been reduced and removed, or where saturation with stagnant water has preserved a reduced state.

(h) “Matrix” means the natural soil material composed of both mineral and organic matter.

(i) “Mineral soil surface” means the top of the uppermost soil horizon consisting of mineral material with less than 12 to 18 percent of organic carbon, depending on the clay content.

(j) “Mottles” means the redoximorphic features comprising spots of contrasting colors in a horizon, with both high chroma and low chroma represented in the variegated colors.

(k) “Redox depletions” means bodies of chroma 2 or less, having value 4 or more where iron-manganese oxides and clay have been stripped.

(l) “Spodic horizon” means a subsurface layer of soil characterized by the accumulation of aluminum oxides, with or without iron oxides and organic matter.

(m) “Value” means the relative lightness or intensity of color and is approximately a function of the square root of the total amount of light. Value is one of the 3 variables of color.

Env-Wq 1014.02 Poorly Drained Soils. Poorly drained soils shall be identified as hydric soils that have aquic conditions in the upper part and one or more of the following for any soil texture:

(a) Within 10 inches of the top of the mineral soil material and directly under an A or Ap horizon, a horizon with a depleted or gleyed matrix;

(b) Within 20 inches of the top of the mineral soil material and directly underlying a thick or very thick dark A or Ap horizon, a horizon with a depleted or gleyed matrix which is 4 inches or more in thickness;

(c) A matrix chroma of 2 or less that extends to a depth of 20 inches below the top of the mineral soil material, with a dark A or Ap horizon that is directly underlain by a horizon with a matrix value of less than 4, and, within 12 inches of the top of the mineral soil material or directly underlying the A or Ap horizon, whichever is shallower, 2% or more redoximorphic features that extend to the shallower of:

(1) A depth of 20 inches below the top of the mineral soil material; or

(2) A depleted or gleyed matrix;

(d) A spodic horizon and, within 6 inches of the top of the mineral soil material, an E horizon with 2% or more redoximorphic features or a stripped matrix that is directly underlain by a spodic horizon with either of the following:

(1) A Bh, Bhs, or Bs horizon with 2% or more redoximorphic features in the upper part; or

(2) A Bh or Bhs horizon, that is directly underlain by a horizon with 2% or more redoximorphic features;

(e) A spodic horizon and a Bh or Bhs horizon greater than 2 inches thick which is:

(1) Within 10 inches of the top of the mineral soil material;

(2) Directly underlying a dark A or Ap horizon or shallow E horizon; and

(3) Directly underlain by a horizon with 2% or more redoximorphic features that is within 20 inches of the top of the mineral soil material;

(f) A spodic horizon and, within 10 inches of the top of the mineral soil material and directly underlying a dark A or Ap horizon, one of the following:

(1) An E horizon with 2% or more redoximorphic features or a stripped matrix directly underlain by a Bh, Bhs, or Bs horizon with 2% or more redoximorphic features;

(2) A Bh or Bhs horizon directly underlain, but within 20 inches of the top of the mineral soil material, by 2% or more redoximorphic features; or

(3) A Bs horizon with 2 % or more redoximorphic features;

(g) If sandy and no spodic horizon, either of the following:

(1) Within 10 inches of the top of the mineral soil material and directly underlying a dark A or Ap horizon, a horizon with matrix color chroma 3 or less, value 4 or more with 2 % or more redoximorphic features; or

(2) Within 15 inches of the top of the mineral soil material and directly underlying a greater than 10 inches, less than 15 inches, very dark A or Ap horizon, a horizon with matrix color chroma 3 or less, value 4 or more with 2% redoximorphic features;

(h) No spodic horizon, and within 10 inches of the top of the mineral soil material and directly underlying a dark A or Ap horizon, a horizon with 5 % or more redox depletions and within 20 inches of the top of the mineral soil material a horizon with a depleted or gleyed matrix;

(i) No spodic horizon, and within 15 inches of the mineral soil material and directly underlying a greater than 10 inch, less than 15 inch, very dark Ap horizon, a horizon with 5% or more redox depletions and within 20 inches of the top of the mineral soil material a horizon with a depleted or gleyed matrix;

(j) A very dark A or Ap horizon less than 10 inches thick and directly underlain by a horizon with matrix color due to wetness of chroma 3 or less with 10% or more redoximorphic features, and:

- (1) Within 6 inches of the top of the mineral soil surface, 2 % or more redoximorphic features, and
- (2) Within 18 inches of the top of the mineral soil material, 2% or more redoximorphic depletions.

Env-Wq 1014.03 Very Poorly Drained Soils. Very poorly drained soils shall be identified as hydric soils that are flooded daily by tides or soils that have aquic conditions in the upper part and one or more of the following:

- (a) Sulfidic materials within 12 inches of the soil surface;
- (b) An organic surface layer greater than 16 inches thick;
- (c) An organic surface layer of 8 to 16 inches thick, and directly underlying the O horizon or, if present, the A horizon, with redoximorphic features;
- (d) An organic surface layer of 4 to 8 inches thick, or mucky A or Ap horizon and is directly underlain by a depleted or gleyed matrix; or
- (e) For sandy soil textures, no spodic horizon, but with an organic surface layer of 4 to 8 inches thick, or mucky A or Ap horizon, directly underlain with 2% or more redoximorphic features.

Env-Wq 1014.04 Receiving Layer.

(a) The receiving layer for an effluent disposal area shall meet the following criteria before a site is considered suitable for system design and approval, either as is or with modifications if needed:

- (1) If the proposed EDA is within 75 feet of a wetland boundary, then areas delineated as wetlands shall be further classified as having poorly drained or very poorly drained soils, in accordance with Env-Wq 1014.02 or Env-Wq 1014.03, as applicable;
- (2) No EDA shall be sited within 75 feet of wetlands that have very poorly drained soils;
- (3) No EDA shall be sited within 50 feet of poorly drained jurisdictional wetlands; and
- (4) Subject to (e), below, the receiving layer shall:
 - a. Have at least 2 feet of permeable soil above any impermeable subsoil;
 - b. Have at least 3 feet of soil above bedrock; and
 - c. Be under and a minimum of 35 feet down-gradient of the proposed EDA, but no less than the distance required by Env-Wq 1008.05, Table 1008-03 for any side- or down-gradient fill extension.

(b) The 2 feet of permeable soil above any impermeable subsoil required by (a)(4), above, may be created by placing fill onto the subsoil, subject to the following conditions:

- (1) The fill shall meet the criteria of (d), below; and
- (2) Any state or local permits necessary to place the fill shall be obtained.

(c) The 3 feet of soil above bedrock required by (a)(5), above, for the down-gradient receiving layer may be created by placing fill onto the subsoil, subject to the following conditions:

- (1) There shall be an average of 18 inches of natural soil above the bedrock;
 - (2) The fill shall meet the criteria of (d), below;
 - (3) Any state or local permits necessary to place the fill shall be obtained; and
 - (4) Fill shall be placed prior to the department issuing subdivision approval.
- (d) Fill used to create a receiving layer in accordance with this section shall:
- (1) Contain no tree stumps, sawdust, wood chips, tree bark, bricks, asphalt, concrete, metal, wallboard, construction debris, or other such non-soil materials;
 - (2) Contain no more than 25% by volume of cobbles larger than 6 inches in diameter or stones larger than 12 inches in diameter;
 - (3) Have a percolation rate of not greater than 15 minutes per inch after placement and compaction; and
 - (4) Be homogeneous, and if bedding planes or other discontinuities are present, the applicant shall submit detailed soil analysis from a person or laboratory qualified to perform the analysis with the application to establish that the fill meets the above criteria.
- (e) If a technology that has received approval under Env-Wq 1024 with a smaller separation distance to impermeable soil or bedrock will be used on a property, the separation distance(s) specified in the technology approval shall govern the down-slope receiving area requirement.

Env-Wq 1014.05 Basis for Poorly and Very Poorly Drained Soils.

- (a) The purpose of the criteria for poorly drained soils is to identify soil conditions where ground water is present within the upper part of the soil surface during the growing season.
- (b) The purpose of the criteria for very poorly drained soils is to identify soil conditions where water is present at or above the soil surface during the growing season such that a significant organic surface layer accumulates.

Env-Wq 1014.06 Delineation of Wetlands; Hydric Soils Determinations.

- (a) Wetlands shall be delineated in accordance with RSA 482-A and Env-Wt 100 et seq.
- (b) For sites in an undisturbed natural state, the presence or absence of hydric soils shall be determined by evaluating shovel or auger holes to a depth of 2 feet. A sufficient number of holes shall be dug to establish the hydric soil boundary to within 5 feet.
- (c) The suitability of a site as a receiving layer shall be determined in accordance with (d), below, if any of the following apply:
 - (1) No fill has been placed on the site, but the natural vegetation and soil have been disturbed to the extent that it is not possible to determine the presence or absence of hydric soils based on a visual examination of the soil horizons revealed by shovel or auger holes; or
 - (2) Fill has been placed on the site prior to 1967 for tidal areas, or prior to 1969 for freshwater areas, or pursuant to authorization of the New Hampshire water resources board prior to 1979, or pursuant to a valid permit from the New Hampshire wetlands board issued prior to August 9, 1996, or issued by the department pursuant to RSA 482-A, and either:
 - a. Visual examination of a test pit establishes that the original soil was hydric, or

b. It cannot be determined by a visual examination of a test pit whether the original soil was a hydric soil or not.

(d) If any of the conditions set forth in (c) above apply, the presence of a suitable receiving layer shall be determined based on the hydrology of the site as shown by data obtained from piezometric monitoring wells in accordance with the following:

- (1) One monitoring well shall be placed in the proposed leaching area and one monitoring well shall be placed at a point between 65 and 75 feet downgradient of the proposed leaching area;
- (2) Additional monitoring wells shall be installed as needed to establish the 20,000 square foot area required for subdivision applications;
- (3) Water level readings shall be taken every 2 weeks;
- (4) Water level readings may be taken more often at the option of the property owner;
- (5) All readings taken shall be submitted quarterly, in writing, to the department;
- (6) Water levels shall be monitored for a period of 2 years;
- (7) Based on the recorded data, the applicant shall estimate the seasonal high water table, taking into account weather conditions such as the amount of precipitation over the period, major storm events, frosts and thaws;
- (8) The applicant shall submit the estimate together with supporting data to the department; and
- (9) The receiving layer shall be deemed suitable if the estimated seasonal high water table is no closer than 15 inches to the existing ground surface.

Env-Wq 1014.07 Distance Above Impermeable Substratum.

(a) Except as allowed by (b) through (d), below, or by Env-Wq 1014.09, the bottom of an EDA shall be at least 4 feet above bedrock or any other impermeable substratum.

(b) The bottom of the EDA for new systems shall be at or above the specified separation distance to bedrock or any other impermeable substratum for any EDA using EDA components that have been approved with reference to a manual pursuant to former Env-Ws 1024 or approved pursuant to Env-Wq 1024, where the approved manual or approval, respectively, specifies that the component can be used with other than a 4-foot separation.

(c) For a system to replace a failed system serving a single family residence or duplex where there will be no expansion, the following shall apply:

- (1) The bottom of the EDA shall be as close to 4 feet above bedrock or other impermeable substratum as possible, and in no case less than 2 feet above bedrock or other impermeable substratum, if a conventional pipe-and-stone system, chamber system, or drywell system is used to replace the failed system; and
- (2) The bottom of the EDA shall be as close to the specified distance above bedrock or other impermeable substratum as possible, and in no case less than 2 feet above bedrock or other impermeable substratum, for any EDA using EDA components that have been approved with reference to a manual pursuant to former Env-Ws 1024 or approved pursuant to Env-Wq 1024, where the approved manual or approval, respectively, specifies that the components can be used with other than a 4-foot separation in new applications.

(d) A system to replace a failed system serving a condominium shall be installed in accordance with (c), above, if:

- (1) The condominium meets the criteria of Env-Wq 1003.11(c);
- (2) The fixtures in each condominium unit are low-flow fixtures or will be replaced within 90 days of the issuance of construction approval with low-flow fixtures; and
- (3) There will be no expansion of the condominium or of the size or use of the individual units in the condominium.

Env-Wq 1014.08 Distance Above Seasonal High Water Table.

(a) Except as allowed by (b) through (d), below, or by Env-Wq 1014.09, the bottom of an EDA shall be at least 4 feet above the seasonal high water table (SHWT).

(b) The bottom of the EDA for new systems shall be at or above the specified separation distance to SHWT for any EDA using EDA components that have been approved with reference to a manual pursuant to former Env-Ws 1024 or approved pursuant to Env-Wq 1024, where the approved manual or approval, respectively, specifies that the component can be used with other than a 4-foot separation.

(c) For a system to replace a failed system serving a single family residence or duplex where there will be no expansion, the following shall apply:

- (1) The bottom of the EDA shall be as close to 4 feet above SHWT as possible, and in no case less than 2 feet above SHWT, if a conventional pipe-and-stone system, chamber system, or drywell system is used to replace the failed system; and
- (2) The bottom of the EDA shall be as close to the specified distance above SHWT as possible, and in no case less than 2 feet above SHWT, for any EDA using EDA components that have been approved with reference to a manual pursuant to former Env-Ws 1024 or approved pursuant to Env-Wq 1024, where the approved manual or approval, respectively, specifies that the component can be used with other than a 4-foot separation in new applications.

(d) A system to replace a failed system serving a condominium shall be installed in accordance with (c), above, if:

- (1) The condominium meets the criteria of Env-Wq 1003.11(c);
- (2) The fixtures in each condominium unit are low-flow fixtures or will be replaced within 90 days of the issuance of construction approval with low-flow fixtures; and
- (3) There will be no expansion of the condominium or of the size or use of the individual units in the condominium.

Env-Wq 1014.09 Separation Distances on Sloping Sites. A portion of a bed proposed for a sloped site may be as close as 24 inches above impermeable substratum or SHWT, provided that at least 50% of the bed area meets the requirements established by Env-Wq 1014.07 and Env-Wq 1014.08.

Env-Wq 1014.10 Spot Elevations Required for Systems on Slopes. Where reductions are being taken pursuant to Env-Wq 1014.09, the applicant shall provide:

- (a) Spot elevations of the original grade at the corners of the proposed bed; and
- (b) Calculations to show that the conditions of Env-Wq 1014.09 will be met.

Env-Wq 1014.11 Water Table Less Than 15 Inches. For sites where the seasonal high water table is less than 15 inches below original grade, the ISDS design shall incorporate proposed construction details designed to protect and maintain the receiving layer for the EDA.

PART Env-Wq 1015 DISTRIBUTION BOXES

Env-Wq 1015.01 Distribution Boxes.

(a) Distribution boxes shall be required for every ISDS where there are multiple beds, trenches, or pipes, except if serial distribution or pressure distribution in accordance with Env-Wq 1019 is used.

(b) Distribution boxes shall be designed to insure equal distribution of effluent to the effluent conduits. The bottom of each outlet line from the distribution box shall be at the same height within the box.

Env-Wq 1015.02 Velocity Reducing Devices. Velocity reducing devices such as an elbow or "T" shall be installed within the distribution box where the effluent line from the septic tank has a slope in excess of 10% or where effluent is being pumped from the septic tank to the distribution box.

Env-Wq 1015.03 Multiple Beds. Where 2 or more EDA are used, a distribution box shall be set on a concrete slab to prevent settling.

PART Env-Wq 1016 CONSTRUCTION REQUIREMENTS FOR ALL EDA

Env-Wq 1016.01 Bed Size for Conventional Stone and Pipe Systems. The bed size for conventional stone and pipe systems shall be determined by the number of bedrooms, percolation rates, and total sewage flow per day as set forth in Table 1016-1 below:

Table 1016-1: Bed Size for Conventional Stone and Pipe Systems
In Square Feet for Varying Loads And Percolation Rates

Percolation Rate in Minutes Per Inch	Single-Family and Duplex - Number of Bedrooms Up to 10				Commercial Per 100 GPD
	2 (300 GPD)	3 (450 GPD)	4 (600 GPD)	Each Add'l Bedroom (+150 GPD)	
2	400	560	750	188	125
4	425	617	825	210	140
6	450	675	900	233	155
8	500	750	1000	255	170
10	550	825	1100	278	185
12	600	900	1200	300	200
14	637	955	1275	319	213
16	675	1010	1350	338	225
18	712	1065	1425	357	237
20	750	1120	1500	375	250
22	775	1158	1550	387	258
24	800	1196	1600	400	266
26	825	1234	1650	412	274
28	850	1272	1700	425	282
30	875	1310	1750	437	290
32	900	1348	1800	449	298
34	925	1386	1850	462	306
36	950	1424	1900	475	314
38	975	1462	1950	488	322
40	1000	1500	2000	500	330
42	1050	1575	2100	525	347
44	1100	1650	2200	550	364
46	1150	1725	2300	575	381
48	1200	1800	2400	600	398
50	1250	1875	2500	625	415
52	1300	1950	2600	650	432
54	1350	2025	2700	675	449

Percolation Rate in Minutes Per Inch	Single-Family and Duplex - Number of Bedrooms Up to 10				Commercial
	2 (300 GPD)	3 (450 GPD)	4 (600 GPD)	Each Add'l Bedroom (+150 GPD)	Per 100 GPD
56	1400	2100	2800	700	466
58	1450	2175	2900	725	483
60	1500	2250	3000	750	500

Env-Wq 1016.02 Bed Size for Chamber Systems.

(a) The effective bed size for chamber systems shall be calculated as the sum of the length times the width of each chamber.

(b) For all applications, the actual bed size shall be at least 60% of the area established in Env-Wq 1016.01.

Env-Wq 1016.03 Excavation. Any person excavating for an EDA shall:

- (a) Protect the natural absorption qualities of the soil;
- (b) Protect open excavation from storm runoff to prevent the entrance of silt and debris;
- (c) Rake all smeared or compacted surfaces to a depth of one inch; and
- (d) Remove loose material before the fill or uniform crushed stone is placed or, in the case of chambers or LDGP systems, the sand layer is constructed.

Env-Wq 1016.04 Type of Stone for Conventional Stone-and-Pipe Beds or Trenches.

(a) The pipe, laid in a bed or trench of sufficient width and depth, shall be supported by approved septic stone as specified in (b), below.

(b) Approved septic stone shall be clean, uniformly-sized washed crushed stone, washed rock, or similar aggregate sized as specified in Table 1014-2, below.

(c) Approved septic stone shall be certified by its producer or distributor as meeting the sieve size and percent passing by weight requirements specified in Table 1014-2, below, based on testing done in accordance with test method T11 as published by AASHTO:

Table 1014-2: Approved Septic Stone Requirements

Sieve Size	Percent Passing By Weight
2 inches	100
1.5 inches	90 - 100
3/4 inch	0 - 20
#4	0 - 5
#200	0 - 2

Env-Wq 1016.05 Backfill of Conventional Pipe-and-Stone Beds.

(a) Before backfilling the EDA, the stone shall be covered with a durable permeable layer that will allow ventilation, such as a 2 inch layer of hay or filter fabric. An impervious covering such as tar paper or plastic shall not be used, as this interferes with ventilation.

(b) Backfill material shall be clean, permeable fill.

(c) After backfilling, the top of the EDA shall be overfilled with 4 to 6 inches of loam suitable for seeding.

(d) No more than 18 inches total of backfill and loam shall be used to cover the EDA unless the effluent conduits are vented.

(e) Hydraulic backfilling or machine tamping of the backfill or loam, or both, shall be prohibited.

Env-Wq 1016.06 Type of Sand for Chamber and LDGP Systems. Chamber and LDGP systems shall be constructed using the type of sand specified in the most current version of the manufacturer's design manual that has been approved by the department in accordance with Env-Wq 1024.

Env-Wq 1016.07 Backfill of Chamber and LDGP Beds. Chamber and LDGP systems shall be backfilled in accordance with the most current version of the manufacturer's design manual that has been approved by the department in accordance with Env-Wq 1024. If the design manual does not specify backfill requirements, then Env-Wq 1016.05 shall apply.

Env-Wq 1016.08 Storm Runoff. Where sloping ground is used for construction of the EDA, a small temporary dike or surface water diversion ditch shall be constructed above the EDA to prevent the EDA from being washed out by rain. The dike shall be maintained or the ditch kept free of obstruction until the EDA becomes stabilized with vegetation, at which time the dike or ditch shall be filled in unless the setback distance in Env-Wq 1008.04, table 1008-2 are met.

Env-Wq 1016.09 Vehicular Traffic.

(a) Heavy wheeled machinery and vehicles shall be excluded from the EDA unless the EDA has been specifically designed to withstand the weight.

(b) All machine grading of the site shall be completed before any components of the EDA are installed.

PART Env-Wq 1017 EFFLUENT CONDUITS

Env-Wq 1017.01 Installation Requirements.

(a) Subject to (b), below, any type of effluent conduit for which the manufacturer has provided a design manual shall be installed in accordance with the most current version of the design manual that has been approved by the department in accordance with Env-Wq 1024 if the design manual contains limitations that must be met in order for the ISDS installed using that effluent conduit to meet the requirements of Env-Wq 1000.

(b) The requirements of this part shall be met for:

- (1) Effluent conduits for which the manufacturer has not provided a design manual; and
- (2) Effluent conduits for which the design manual is silent on a particular requirement.

Env-Wq 1017.02 Concrete Chambers.

(a) Each bed that includes concrete chambers shall be constructed on a 6 inch level layer of:

- (1) Medium to coarse textured sand, with an effective size of 0.25 to 2.0 mm, no greater than 5% passing the number 200 sieve, and no particles larger than 3/4 inch; or
- (2) Materials meeting the ASTM C-33 specification.

(b) Filter fabric or galvanized wire mesh shall be placed around the chambers prior to placing the septic stone.

(c) The pipe conveying effluent from the septic tank to the bed shall empty into either a velocity reducing pit, a splash plate, or internal distribution system.

Env-Wq 1017.03 Venting for Chamber Systems.

- (a) All chamber systems shall be vented as specified in this section.
- (b) Chambers that are of solid-wall construction shall be vented using a pipe to the atmosphere.
- (c) Chambers having louvered side-walls or other such openings that allow air from the surrounding soils to flow into the chamber shall not need additional venting unless more than 18 inches of backfill and loam will be placed on the chambers.
- (d) If a vent pipe is used, the length of pipe between the bed and the stand-pipe shall be pitched such that effluent is not able to flow out of the bed.

Env-Wq 1017.04 Location Under Driveways.

- (a) Chambers proposed to be located under driveways and parking areas shall be:
 - (1) Certified by the manufacturer or distributor, or by a P.E., to withstand the anticipated load; and
 - (2) Installed as designed.
- (b) Pipe-and-stone systems proposed to be located under driveways or parking areas shall be designed by a P.E. as required by Env-Wq 1003.02(f)(4).
- (c) Other types of effluent conduits shall not be used under driveways and parking areas unless the most current version of the manufacturer's design manual that has been approved by the department in accordance with Env-Wq 1024 allows such use.

Env-Wq 1017.05 Requirements for All Effluent Conduits.

- (a) All effluent conduits for ISDS for which an application is filed on or after the 2016 effective date of this chapter shall be equivalent to SDR 35 or stronger.
- (b) Supply lines from the distribution box to the effluent conduits shall be unperforated pipe.
- (c) Tight connectors shall be used between the effluent conduits.
- (d) The maximum length of an effluent conduit shall be 100 feet.
- (e) Each effluent conduit shall come directly from a separate outlet of the distribution box.
- (f) The effluent conduits shall be sealed into the distribution box with non-shrink mortar or other sealant that can be shown by submission of manufacturer's literature with the application to be shrink-proof, water proof and will not deteriorate over time.
- (g) All effluent conduits shall be either interconnected or capped at the far end of the system.
- (h) The effluent conduits and the bottom of the EDA shall be level.

Env-Wq 1017.06 Effluent Conduits for Conventional Pipe-and-Stone Systems. For a conventional stone-and-pipe system, the following shall apply:

- (a) The effluent conduits shall be 4 inch perforated rigid pipe; and
- (b) The holes in the pipes shall be positioned at the 5 and 7 o'clock positions.

PART Env-Wq 1018 BEDS AND TRENCHES

Env-Wq 1018.01 Construction of Beds.

- (a) Concrete chamber beds shall be as specified in Env-Wq 1017.02(a).
- (b) For a conventional stone-and-pipe system, the following shall apply:
 - (1) The bed shall consist of a minimum of 12 inches of stone total, with a minimum of 6 inches of stone under the pipes and a minimum of 2 inches of stone over the pipes; and
 - (2) The pipes shall be laid evenly spaced a maximum of 5 feet on center with 2.5 feet of septic stone from the pipes to the outside of the bed.
- (c) The bed for a chamber or LDGP system shall be as specified in the most recent manufacturer's design manual approved by the department.

Env-Wq 1018.02 Trench Orientation.

- (a) Trenches shall be parallel to the contours of the land.
- (b) All trenches shall be of equal length unless serial distribution is used.
- (c) The bottom of the trench shall not be more than 5 feet below final grade.
- (d) Unless serial distribution is used, the first length of all distribution lines leading from the distribution boxes to the trenches shall be laid with the same pitch.

Env-Wq 1018.03 Width and Spacing of Trenches.

- (a) Subject to (b), below, trenches shall be separated by at least 2 feet of undisturbed soil or fill meeting the requirements specified in Env-Wq 1021.03(b).
- (b) Any trench of 48 to 60 inches in width which is greater than 3 feet below original grade shall be separated a minimum of 3 times the width.

Env-Wq 1018.04 Construction of Trenches Near Trees. Trenches constructed within 10 feet of large trees or dense shrubbery shall have at least 12 inches of uniform crushed stone beneath the leach pipe.

Env-Wq 1018.05 Size of Effluent Disposal Area for Trench Systems.

- (a) Sidewall surfaces in trench systems shall be used in calculating the EDA only if the septic tank outlet is at a higher elevation than the top of the EDA.
- (b) The effective EDA for trenches shall be calculated as twice the effective sidewall surface added to the width, multiplied by the length and then multiplied by the number of trenches, as shown in the following equation:

$$\{ \text{trench length} \times [\text{trench width} + (\text{trench depth} \times 2)] \} \times \text{number of trenches}$$

PART Env-Wq 1019 PRESSURE DISTRIBUTION

Env-Wq 1019.01 Pressurized Distribution System.

- (a) An ISDS using pressurized distribution shall distribute effluent from a septic tank using small diameter pipe, with perforations, pressurized by pumps or siphons, such that the volume of water that flows out each hole is as equal as possible.

(b) A pressurized distribution system shall lose 75 to 85 percent of the head in the network when the water passes through the holes.

Env-Wq 1019.02 Design Requirements.

(a) Hole size shall be within the range of 1/4 inch to 5/8 inch.

(b) Maximum allowable hole spacing shall be 6 feet.

(c) The perforation at the end of the effluent conduit shall be drilled horizontally in the end cap near the crown of the pipe to facilitate venting.

(d) In ISDS with pressure distribution, the lateral spacing of the pipes shall be approximately equal to the perforation spacing, and holes on adjacent laterals shall be staggered so that they lie on the vertices of equilateral triangles.

(e) The dosing volume for pressure distribution shall be 5 to 10 times the network pipe volume. If duplicate pumps are not provided, the dosing chamber shall have a reserve capacity above the active dosing volume equal to one day's average flow.

(f) The loading rate shall be 0.8 gallons per day per square foot.

(g) The dose rate shall be 0.2 gallons per dose per square foot.

(h) Basal area requirements shall be based upon the percolation rate as presently applied to conventional systems.

(i) Fill material shall be:

(1) A medium to coarse textured sand, with an effective size of 0.25 to 2.0 mm., no greater than 5% passing the number 200 sieve, and no particles larger than 3/4 inch; or

(2) Materials meeting the ASTM C-33 specification.

(j) The separation distances with respect to seasonal high water table, impermeable substratum, and ledge shall be as set forth in Env-Wq 1014.04 and Env-Wq 1014.05.

Env-Wq 1019.03 Mounding Minimization. The length-to-width ratio for bed areas shall be increased in order to minimize groundwater mounding potential, increase oxygen transfer levels, and increase down-slope cross-sectional area.

Env-Wq 1019.04 Application Requirements. The following shall appear on or with all plans and specifications for pressure distribution systems submitted for review:

(a) All calculations as indicated on a pressure distribution worksheet, revised 4/96, found at http://des.nh.gov/organization/commissioner/pip/forms/ssb/documents/ssb_pd_worksheet.doc;

(b) All details for network layout;

(c) Pump/pump station or siphon details;

(d) Network drainage to avoid freezing potential;

(e) All construction methods for basal area preparation; and

(f) Inspection/construction requirements as follows:

(1) "Basal area preparation to be inspected by system designer prior to fill placement. An inspection report shall be submitted to the regional inspector at the time of final inspection.";

- (2) “Caution to be exercised during fill placement/site preparation to avoid compaction or smearing of infiltrative surface.”; and
- (3) “Maintain 8-12 inches of fill between equipment tracks and prepared surface.”

Env-Wq 1019.05 Construction Requirements.

- (a) The permitted designer shall inspect the basal area preparation prior to fill placement, and shall submit an inspection report to the department’s regional inspector at the time of final inspection.
- (b) Compaction and smearing of infiltrative surface shall be avoided during fill placement and site preparation.
- (c) The installer shall maintain 8 to 12 inches of fill between equipment tracks and the prepared surface.

PART Env-Wq 1020 DRY WELLS

Env-Wq 1020.01 Masonry Units.

- (a) If precast masonry units are used for dry wells, the portion of the dry well above the inlet pipe shall be laid with mortared joints or otherwise strengthened.
- (b) Hard-burned brick, heavy-weight concrete block, structural clay tile, and fieldstone shall be acceptable if properly laid to provide necessary structural strength.
- (c) If cement blocks are used, the blocks shall be laid such that the holes run vertically.

Env-Wq 1020.02 Stone.

- (a) A perimeter of 6 inches to 2-1/2 feet of septic stone shall be placed around the masonry work or precast unit.
- (b) The horizontal distance of septic stone used shall not be more than 1/2 the inside diameter, or narrowest inside dimension of the masonry work or precast unit.
- (c) A minimum of 12 inches of septic stone shall be placed under the unit.

Env-Wq 1020.03 Distance Between Dry Wells. Multiple dry wells installed as part of the same ISDS shall be separated by at least 10 feet.

Env-Wq 1020.04 Sizing of Effluent Disposal Area.

- (a) For purposes of complying with Env-Wq 1016.01, the effective effluent disposal area for dry wells shall be the vertical wall area, based on the dug diameter, below the inlet, excluding the surface area of the bottom of the drywell.
- (b) The total area provided shall be at least 50% of the area established in Env-Wq 1016.01.
- (c) The area shall be calculated to the edge of stone using one of the following formulas:
 - (1) $A = \pi dh$, where d is the diameter of the dry well and h is the height below inlet; or
 - (2) $A = 2h(l+w)N$, where h is the height of the dry well, l is the length of the dry well, w is the width of the dry well, and N is the total number of drywells.

Env-Wq 1020.05 Abandoned Dry Wells. Abandoned wastewater dry wells shall be filled in with earth or stone.

Env-Wq 1020.06 Precast Units. If precast units are used, they shall:

- (a) Have at least one inlet and one inspection cover; and
- (b) Be round or polygonal in cross-sectional shape.

PART Env-Wq 1021 RAISED EFFLUENT DISPOSAL AREAS

Env-Wq 1021.01 Building Foundation. The foundation of a building served by a raised EDA shall be constructed high enough to allow gravity feed to the system, unless a pump is used.

Env-Wq 1021.02 Site Preparation. After the plans for a system having a raised EDA have been approved, the EDA shall be staked out in accordance with the plans. All trees, topsoil, roots that are directly attached to a tree stem which can be extracted with the stump, and organic soil material shall be removed from the area to be filled, including the area under the side slopes.

Env-Wq 1021.03 Fill Material.

(a) Subject to (b), below, fill required to raise the EDA to the approved distance above the seasonal high ground water table or impervious substratum shall be clean bank run sand, free of topsoil or humus, dredged material, or stones more than 6 inches in any dimension.

(b) The first 6 inches directly beneath the bed and extending laterally across the fill extension shall consist of:

- (1) Medium to coarse textured sand, with an effective size of 0.25 to 2.0 mm, no greater than 5% passing the number 200 sieve, and no particle size larger than 3/4 inch; or
- (2) Materials meeting the ASTM C-33 specification.

Env-Wq 1021.04 Fill Extension; Side Slopes.

(a) The finished grade over the bed shall:

- (1) Extend for a minimum of 3 feet horizontally beyond the bed before starting to slope; and
- (2) Be covered by 4 to 6 inches of loam suitable for seeding.

(b) The sides of a raised EDA shall taper at a 3:1 slope, except that a slope of 2:1 may be used if necessary to maintain the side slopes on-lot or avoid an existing permanent structure.

(c) Side slopes shall be stabilized by being covered with:

- (1) At least 3 inches of loam that is seeded immediately;
- (2) At least 3 inches of bark mulch; or
- (3) Other material that will prevent erosion and lead to long-term stability of the slopes without interfering with ventilation, such as an erosion control blanket.

Env-Wq 1021.05 Slope of Site for Raised EDA. A raised EDA shall not be placed on a site having a natural slope greater than 34%.

Env-Wq 1021.06 Retaining Walls Prohibited. Retaining walls or foundations used as retaining walls shall not be allowed to substitute for side slopes.

PART Env-Wq 1022 ALTERNATE SYSTEMS

Env-Wq 1022.01 Privies.

(a) No privy shall be located within 75 feet of drinking water wells, surface waters, or foundations on abutting lots.

(b) Subject to (c), below, the bottom of the privy pit shall be at least 4 feet above seasonal high water table and impermeable substratum or ledge.

(c) If the bottom of the privy pit is less than 4 feet above the seasonal high water table or impermeable substratum or ledge, the pit shall be sealed.

Env-Wq 1022.02 Mini-Dry Wells for Gray Water.

(a) For purposes of this section, “gray water” means residential wastewater other than from a urinal or a toilet.

(b) A mini-dry well shall be used for the disposal of gray water only if there will be:

(1) No running water to or within the structure to be served; and

(2) No other wastewater discharge from the structure to be served.

(c) No mini-dry well for gray water shall be within 75 feet of drinking water wells or surface waters.

(d) A mini-dry well for gray water shall be a hole up to 18 inches in diameter and up to 12 inches deep, filled with stone or gravel.

Env-Wq 1022.03 Holding Tanks.

(a) Holding tanks or closed systems shall not be approved except in the following instances:

(1) As a replacement for an existing system in failure when no other means of disposal is practical;

(2) When the structure proposed to be served by the holding tank will be connected to a municipal sewer within one year of approval of the holding tank application; or

(3) For an infrequent commercial use, such as a fairgrounds at which events are held less than 6 times per year.

(b) Holding tanks shall be:

(1) Water-tight;

(2) A minimum of 2,000 gallons in size; and

(3) Provided with an alarm system to indicate when the tank is full and requires pumping.

(c) Any person applying for a holding tank approval shall submit with the application a copy of the signed contract with a licensed septage hauler that identifies at least one approved disposal site to which the septage will be hauled.

(d) The owner of the property on which a holding tank has been installed shall:

(1) Retain all receipts for pumping services for a period of 2 years from the date of the receipt; and

(2) Submit copies of said receipts to the local health officer on a quarterly basis.

Env-Wq 1022.04 Disposal of Residential Water Treatment Backwash.

- (a) Residential water treatment backwash shall be discharged only to:
 - (1) An ISDS that is designed and sized to accommodate the volume of backwash generated; or
 - (2) An alternative disposal system as specified in (b) and (c), below.
- (b) An alternative disposal system for residential water treatment backwash shall:
 - (1) Infiltrate on the property served by the water treatment system;
 - (2) Not cause soil erosion, siltation, or overland run-off;
 - (3) Not discharge to any surface water or wetland;
 - (4) Accept residential water treatment backwash only;
 - (5) Be located so as to minimize any influence on water supply wells and ISDS on the property served or on adjacent properties; and
 - (6) Not cause or contribute to any violation of the ambient groundwater quality standards as specified in Env-Or 603 on adjacent properties.
- (c) An alternative disposal system such as a mini-dry well, small leaching pit, or trench with perforated pipe shall be used only if it meets the parameters specified in (b), above.
- (d) An alternative disposal system meeting the parameters specified in (b), above, shall not require approval from the department.

PART Env-Wq 1023 OPERATING REQUIREMENTS

Env-Wq 1023.01 Septic Tank Inspection and Pumping Requirements.

- (a) Septic tanks shall be inspected for accumulation of sludge and surface scum at a frequency sufficient to allow the tank to be pumped by a licensed septage hauler when the combined thickness of the sludge and surface scum equal 1/3 or more of the tank depth.
- (b) For any septic tank having cast-in concrete baffles, the baffles shall be:
 - (1) Inspected for structural integrity when the tank is inspected pursuant to (a), above; and
 - (2) Replaced if no longer functioning as required.
- (c) Septage and effluent shall be discharged from a septic tank only to:
 - (1) An approved or grandfathered effluent disposal area; or
 - (2) A licensed septage hauling vehicle.

Env-Wq 1023.02 Gravity Grease Interceptor Inspection and Pumping Requirements.

- (a) Gravity grease interceptors shall be inspected for accumulation of sludge and surface scum or grease at a frequency sufficient to allow the tank to be pumped by a licensed septage hauler when the combined thickness is equal to 25% or more of the tank depth or the sludge is at the level of the outlet tee.
- (b) Grease shall be removed from a gravity grease interceptor only by a licensed septage hauling vehicle.

Env-Wq 1023.03 Disposal of Grease; Disposal of Bulky Waste Prohibited. To prevent obstruction of the distribution lines and effluent conduits:

- (a) Grease shall not be flushed or otherwise introduced into an ISDS that does not have a gravity grease interceptor; and
- (b) Bulky wastes shall not be flushed or otherwise introduced into an ISDS.

Env-Wq 1023.04 Disposal of Toxic and Hazardous Materials Prohibited. Toxic and hazardous materials shall not be flushed or otherwise introduced into an ISDS.

Env-Wq 1023.05 Protection of Distribution Lines and Effluent Disposal Area. To prevent damage to the distribution lines and effluent disposal area, vehicles, livestock and other heavy objects shall not be allowed on the effluent disposal area.

Env-Wq 1023.06 Indications of Possible Septic System Failure Requiring Inspection. If wet areas appear on the ground surface above the septic tank, distribution lines, or effluent disposal area, or if disagreeable odors occur, the owner of the ISDS shall:

- (a) Inspect the system or have the system inspected by a permitted designer or permitted installer to determine the source of the problem(s); and
- (b) Take action to correct the problem(s).

PART Env-Wq 1024 INNOVATIVE/ALTERNATIVE TECHNOLOGY

Env-Wq 1024.01 Purpose and Scope.

- (a) The purpose of this part is to provide the methodology and review process for the approval of:
 - (1) Innovative/alternative technology proposed for use in ISDS, in compliance with RSA 485-A:29, I; and
 - (2) Updated design manual(s) for technology that originally was approved with reference to a manual under former Env-Ws 1024 and for which installation in accordance with the manual is required in order for the technology to be used in New Hampshire.
- (b) This part shall apply to:
 - (1) Any proposed ISDS technology not described elsewhere in Env-Wq 1000; and
 - (2) Technology that was approved with reference to a manual under former Env-Ws 1024, whether or not the technology is described elsewhere in Env-Wq 1000, if installation in accordance with the manual is required in order for the technology to be used in New Hampshire.
- (c) No approval granted under this part shall be deemed to affect any approval of property subdivision, nor shall any property subdivision considered under this chapter be granted contingent on the use of any technology approved under this part.

Env-Wq 1024.02 Definitions.

- (a) “Conventional technology” means:
 - (1) For effluent disposal, a conventional pipe-and-stone system, as defined in Env-Wq 1002.16, installed in accordance with the applicable provisions of Env-Wq 1000; or

(2) For treatment tanks, a standard septic tank as defined in Env-Wq 1002.61, installed in accordance with the applicable provisions of Env-Wq 1010.

(b) “Director” means the director of the department’s division of water.

(c) “Innovative/Alternative waste treatment” as defined in RSA 485-A:2, XXI, includes ISDS that incorporate technology approved pursuant to this part.

(d) “ITA applicant” means the person seeking approval of proposed technology or an updated manual in accordance with this part.

(e) “Innovative/alternative technology approval (ITA)” means an approval issued by the department pursuant to Env-Wq 1024.

Env-Wq 1024.03 Use, Repair, and Replacement of Innovative/Alternative Technology.

(a) No innovative/alternative technology shall be used in an ISDS unless the technology has been evaluated and approved in accordance with this part.

(b) If the manufacturer’s specifications or the operational manual for the proposed innovative/alternative technology states that the technology requires ongoing professional maintenance to operate properly, the owner of a proposed ISDS which incorporates that technology shall execute a service contract for such maintenance before approval to operate is granted.

(c) If an ISDS that was constructed using technology approved under this part fails for reasons related to the innovative/alternative technology, the ISDS shall not be replaced with the same technology unless the source of the failure is specifically identified and corrected.

Env-Wq 1024.04 Types of ITA.

(a) The ITA issued by the department shall be provisional, general, or general with conditions.

(b) The ITA applicant shall submit an application for a provisional ITA in accordance with Env-Wq 1024.05 if:

(1) The proposed technology has not previously been approved by the department; or

(2) The technology was approved with reference to a manual under Env-Ws 1024, but the ITA applicant seeks approval to use or install the technology in one or more ways not previously approved, for instance with a smaller separation distance to the seasonal high water table.

(c) A provisional ITA shall:

(1) Allow up to 50 ISDS to be installed using the approved technology over a time period of up to 5 years;

(2) Require the ITA applicant to conduct performance testing in accordance with Env-Wq 1024.11 during the approval period stated in the provisional ITA; and

(3) Require the ITA applicant to report the results of the testing conducted pursuant to (2), above to the department in writing.

(d) An ITA applicant shall submit an application for a general ITA or general ITA with conditions in accordance with Env-Wq 1024.07 if:

(1) The ITA applicant has complied with all terms and conditions of a provisional ITA issued pursuant to this part; and

(2) The performance testing conducted pursuant to (c)(2), above, demonstrates that there is sufficient operating history, or other valid data, to allow general use of the technology, either with or without conditions.

(e) A general ITA shall allow the approved technology to be used in accordance with the standards specified in Env-Wq 1000 for conventional systems, subject to any bed size reductions allowed by the approval.

(f) A general ITA with conditions shall allow the approved technology to be used subject to the conditions specified in the ITA, including but not limited to conditions such as:

- (1) Requiring compliance with specific operation and maintenance (O&M) provisions;
- (2) Requiring compliance with specific installation requirements;
- (3) Requiring the technology to be installed in accordance with a design manual supplied by the manufacturer if such manual contains conditions, limitations, or installation requirements that must be met in order for the technology to meet the approval criteria; and
- (4) Other conditions, limitations, or restrictions as are necessary to ensure or verify that the technology as installed in the field meets the criteria specified in Env-Wq 1024.08(c).

Env-Wq 1024.05 Applications for Provisional ITA.

(a) To obtain a provisional ITA, the ITA applicant shall submit a written application that includes the following:

- (1) If the ITA applicant is an individual, the individual's name, mailing address, daytime telephone number, and, if available, an e-mail address;
- (2) If the ITA applicant is other than an individual, the name and mailing address of the ITA applicant and the name and daytime telephone number, and, if available, an e-mail address, for an individual who can be contacted on behalf of the ITA applicant regarding the application;
- (3) A narrative description of the proposed technology, together with any diagrams or schematics that are helpful to understanding the proposed technology;
- (4) If the ITA applicant believes that installation in accordance with a manufacturer's design manual is required for the proposed technology to meet the criteria specified in Env-Wq 1024.08(c), a copy of the design manual;
- (5) Whether approval is sought for use of the proposed technology in residential ISDS, commercial ISDS, or both;
- (6) All operational reports, patent information, technical reports, and laboratory reports published on the proposed technology, even if the information might in whole or in part reflect negatively on the technology;
- (7) A description of any advantages of the proposed technology over conventional technology in the prevention of health hazards, surface and groundwater pollution, and any other environmental benefits;
- (8) A description of the possible risks to public health, surface or ground waters, or other aspects of the environment of using the proposed technology;
- (9) A list of the states or provinces that have approved the technology, and for each such state or province:

- a. The name, mailing address, and main telephone number of the specific agency that issued the approval;
 - b. The name and daytime telephone number and, if available, an e-mail address, of an official at the state or provincial agency which issued the approval who can be contacted regarding the approval; and
 - c. A statement of whether the approval contains any restrictions, limitations, or other conditions on the use of the technology;
- (10) The names, addresses, and phone numbers of at least 3 individuals who have experience in the design and operation of the same type of technology, if available;
 - (11) The effect of the proposed technology on the area of land required for operation;
 - (12) A list of any rules under Env-Wq 1000 for which waivers will be requested as part of the ITA; and
 - (13) A list of site locations where the technology has been used, if available, whether successfully or not.
- (b) If information addressing more than one category of (a)(3) through (13), above, is found within the same document, the ITA applicant shall identify on a separate sheet of paper which categories are covered in that document, listed by page number.

Env-Wq 1024.06 Review of Applications for Provisional ITA.

- (a) The department shall review an application submitted pursuant to Env-Wq 1024.05 within the time periods specified in RSA 541-A:29.
- (b) Subject to (c), below, the department shall issue a provisional ITA for the proposed technology if, based on its evaluation of the available information, it makes its best engineering judgment that:
 - (1) The proposed technology is likely to be at least as protective of the environment as conventional technology, as that criterion is explained in Env-Wq 1024.10(a); and
 - (2) The proposed technology is likely to function as reliably or better than conventional technology, as that criterion is explained in Env-Wq 1024.10(b).
- (c) If the information available to the department is sufficient to allow the commissioner, based on a recommendation of the director, to determine that a general ITA or general ITA with conditions should be issued in lieu of a provisional ITA because the ITA applicant has demonstrated that the proposed technology meets the criteria of Env-Wq 1024.08(b) or (c), as applicable, the department shall issue the recommended ITA in lieu of a provisional ITA.
- (d) If the department approves the application for a provisional ITA, it shall:
 - (1) Notify the ITA applicant in writing signed by the director of the issuance of the provisional ITA and of the requirements to conduct and report on performance testing; and
 - (2) Post on its web site a notice that the provisional ITA has been issued.
- (e) If a decision is made pursuant to (c), above, to issue a general ITA or general ITA with conditions, the department shall issue the notice in accordance with Env-Wq 1024.08(d).
- (f) If, based on its evaluation, the department determines that the ITA applicant has not demonstrated that the technology will meet the criteria specified in (b), above, the department shall notify the ITA applicant, in writing, of the denial and the specific reason(s) for the decision.

Env-Wq 1024.07 Applications for General ITA or General ITA with Conditions.

(a) To apply for a general ITA or general ITA with conditions, the ITA applicant shall submit the following in writing to the department:

- (1) All of the information specified in Env-Wq 1024.05 for a provisional ITA application;
- (2) A clear and concise summary of the results of the performance testing conducted pursuant to the provisional ITA; and
- (3) If the application is for a general ITA with conditions, a list of the conditions the ITA applicant is asking to have in the approval, which may include a manufacturer's design manual.

(b) If information addressing more than one category of Env-Wq 1024.05(a)(3) through (13) is found within the same document, the ITA applicant shall identify on a separate sheet of paper which categories are covered in that document, listed by page number.

Env-Wq 1024.08 Review of Applications for General ITA and General ITA with Conditions.

(a) The department shall review an application submitted pursuant to Env-Wq 1024.07 within the time periods specified in RSA 541-A:29.

(b) The department shall issue a general ITA for the proposed technology if, based on its evaluation of the available information, it makes its best engineering judgment that the proposed technology will, without special O&M requirements or other conditions, limitations, or restrictions:

- (1) Be at least as protective of the environment as conventional technology, as that criterion is explained in Env-Wq 1024.10(a); and
- (2) Function as reliably or better than conventional technology, as that criterion is explained in Env-Wq 1024.10(b).

(c) The department shall issue a general ITA with conditions for the proposed technology if, based on its evaluation of the available information, it makes its best engineering judgment that the proposed technology will, with the specified O&M requirements or other conditions, limitations, or restrictions:

- (1) Be at least as protective of the environment as conventional technology, as that criterion is explained in Env-Wq 1024.10(a) or Env-Wq 1024.11(a), as applicable; and
- (2) Function as reliably or better than conventional technology, as that criterion is explained in Env-Wq 1024.10(b) or Env-Wq 1024.11(b), as applicable.

(d) If the department approves the application, it shall:

- (1) Notify the ITA applicant in writing signed by the director of the issuance of the approval;
- (2) Include in the notice a statement of whether the approval is a general ITA or general ITA with conditions, and if a general ITA with conditions, the specific conditions that apply; and
- (3) Post on its web site a notice that the ITA has been issued.

(e) If, based on its evaluation, the department determines that the ITA applicant has not demonstrated that the proposed technology will meet the criteria specified in (b) or (c), above, the department shall:

- (1) Issue a provisional ITA and notify the applicant in accordance with Env-Wq 1024.06(c), if the criteria for a provisional ITA specified in Env-Wq 1024.06(b) have been met; or

- (2) Deny the application and notify the ITA applicant, in writing, of the denial and the specific reason(s) for the decision if the criteria for a provisional ITA specified in Env-Wq 1024.06(b) also have not been met.

Env-Wq 1024.09 Effect of an ITA: Recordation Required.

- (a) Once granted, a provisional ITA shall constitute evidence that the department has determined, based on the information reviewed, that the technology is likely to be acceptable but that evaluation of performance testing under actual operating conditions is required before a final determination can be made.
- (b) Once granted, a general ITA or general ITA with conditions shall constitute evidence that:
 - (1) The department has determined, based on the materials submitted with the application, that the technology as approved is expected to be capable of adequately treating sewage provided that any O&M requirements or other conditions, limitations, or restrictions noted are adhered to; and
 - (2) The technology is approved for purposes of applying for site-specific construction approvals under Env-Wq 1003 and Env-Wq 1004.
- (c) An ITA shall not be construed as evidence of suitability of the technology for any particular lot.
- (d) Obtaining an ITA shall not abrogate the necessity of obtaining both a construction approval and approval to operate before using the technology in a proposed ISDS.
- (e) The applicant shall furnish a copy of the ITA when applying for approvals under Env-Wq 1003 and Env-Wq 1004.
- (f) For any ITA that requires a service contract as part of the approval, the property owner shall record the construction approval and approval to operate in the chain of title for the property served by the technology.

Env-Wq 1024.10 Evaluation Criteria - Effluent Disposal Area.

- (a) The criterion “at least as protective of the environment as a conventional system” when applied to EDA technology means that the effluent quality from the proposed technology will be as good or better than the effluent quality from conventional technology for at least the following parameters:
 - (1) Five-day biochemical oxygen demand (BOD5);
 - (2) Total suspended solids (TSS);
 - (3) Nitrogen;
 - (4) Phosphorus; and
 - (5) Fecal coliform.
- (b) The criterion “function as reliably or better than a conventional system” when applied to effluent disposal means that the proposed technology, as compared to conventional technology, has a:
 - (1) Decreased susceptibility to failure, as defined in Env-Wq 1002.30;
 - (2) Reduced occurrence of inadequately treated discharges; and
 - (3) Decreased levels of required operator attention and skills.

(c) When evaluating an applicant's design manual, the department shall review the material in the manual to ensure that a system built following the design manual will meet the criteria specified in Env-Wq 1024.08(c).

Env-Wq 1024.11 Evaluation Criteria - Treatment Tanks.

(a) The criterion "at least as protective of the environment as a conventional system" when applied to a treatment tank means that:

- (1) If no reductions in set-backs to SHWT, impervious substrate, or surface water are being requested, the effluent quality from the proposed technology will be as good or better than the effluent quality from a standard septic tank;
- (2) If reductions in set-backs to SHWT, impervious substrate, or surface water are being requested, the effluent quality from the proposed technology will:
 - a. Meet NSF 40 standards for at least 2 parameters; and
 - b. Exceed effluent quality from a standard septic tank for the 3 parameters not covered by NSF 40; or
- (3) If reductions in nitrate set-backs are being requested, the effluent quality from the proposed technology meets or exceeds NSF 245 and nitrate at the property boundary will not exceed 10 mg/L.

(b) The criterion "function as reliably or better than a conventional system" when applied to a treatment tank means that the proposed technology, as compared to a standard septic tank, has a reduced occurrence of inadequately treated discharges.

(c) When evaluating an applicant's design manual, the department shall review the material in the manual to ensure that a system built following the design manual will meet the criteria specified in Env-Wq 1024.08(c).

Env-Wq 1024.12 Performance Testing.

(a) Performance testing required pursuant to Env-Wq 1024.04(c)(2) shall be designed such that:

- (1) The amount and quality of data available on the proposed technology becomes sufficient to support claims of performance and operational reliability:
 - a. In conditions of weather and terrain that reasonably can be expected in the state; and
 - b. Over a period of time such that the expected useful life of an ISDS using the technology can be estimated to be comparable to the expected useful life of conventional technology;
- (2) The complexity of the proposed technology does not interfere with the application of standard engineering judgment to evaluate claims of performance and operational reliability;
- (3) If the proposed technology could fail in ways that would be difficult to detect in the field by visual or olfactory observation, alternative methods to detect failure are developed that can be implemented in actual installations; and
- (4) The consequences of failure of the proposed technology can be compared to the consequences of failure of conventional technology.

(b) Prior to undertaking performance testing, the ITA applicant shall submit a proposed testing protocol to the department in writing.

(c) The department shall approve the proposed testing protocol if:

- (1) The testing will be performed on an ISDS installed in accordance with the manufacturer's design manual, if the ITA applicant has specified that such installation is believed to be required in order for the proposed technology to meet the criteria specified in Env-Wq 1024.06(b);
- (2) The test ISDS will be installed in New Hampshire or in conditions of weather and terrain that reasonably can be expected in the state;
- (3) Effluent loading and quality will replicate effluent loading and quality typically found in the type of installation for which approval is sought, such as residential or commercial;
- (4) Groundwater sampling will be performed at least monthly, in locations that allow for evaluation of groundwater quality around, under, and at least 75 feet down-gradient of the test ISDS; and
- (5) The department will receive split samples of a representative number of groundwater samples, determined based on the number of sampling locations and frequency of sampling.

Env-Wq 1024.13 Updated Design Manuals.

- (a) Approval of an updated manufacturer's design manual shall be sought pursuant to this section only if:
 - (1) The technology covered by the design manual originally was approved with reference to a manual under former Env-Ws 1024 or has received a general ITA with conditions under Env-Wq 1024;
 - (2) Installation in accordance with the manual is required in order for the technology to be used in New Hampshire; and
 - (3) The changes to the manual do not affect the use or installation of the technology in one or more ways not previously approved, for instance with a smaller separation distance to the seasonal high water table.
- (b) The updated manual shall not be effective in New Hampshire unless and until it is approved in accordance with this section.
- (c) To obtain approval of the updated manual, the ITA applicant shall submit 3 copies of the updated manual to the department together with the following:
 - (1) A copy of the original ITA;
 - (2) All operational reports, patent information, technical reports, and laboratory reports published on the technology subsequent to the original application, even if the information might in whole or in part reflect negatively on the technology; and
 - (3) The details on how the updated manual differs from the original manual, and why the manufacturer is proposing the changes.
- (d) The department shall approve the updated manual if the department determines that a system built following the updated design manual will meet the criteria specified in Env-Wq 1024.08(c).
- (e) If the department approves the updated manual, it shall:
 - (1) Notify the ITA applicant in writing; and
 - (2) Post on its web site a notice that the updated manual has been approved.
- (f) If the department determines that the updated manual does not meet the criteria specified in (d), above, the department shall:

- (1) Notify the applicant, in writing, of the denial and the specific reason(s) for the decision; and
- (2) Post on its web site a notice that the updated manual has not been approved.

(g) The notice posted pursuant to (e)(2) or (f)(2), above, shall include the date of the most recently-approved manual.

PART Env-Wq 1025 WATERFRONT PROPERTY SITE ASSESSMENT STUDY

Env-Wq 1025.01 Conduct and Documentation of Site Assessment Study.

(a) Pursuant to RSA 485-A:39, I, prior to the execution of a purchase and sale agreement for any developed waterfront property, the owner shall hire an individual as specified in Env-Wq 1025.02 to conduct a site assessment study of the property to determine whether the property meets the standards for ISDS established in Env-Wq 1000.

(b) The site assessment study shall:

- (1) Include an on-site inspection of the property; and
- (2) Not constitute an evaluation of the existing ISDS on the property, if any.

(c) The individual conducting the site assessment study shall document the site assessment study by completing a “Site Assessment Form” obtained from the department.

Env-Wq 1025.02 Site Assessors.

(a) Subject to (b), below, all site assessment studies shall be conducted by a permitted designer.

(b) If the design flow of the existing ISDS on the site to be assessed is greater than 2,500 GPD, the assessor shall also be a civil or sanitary engineer licensed in the state of New Hampshire.

Env-Wq 1025.03 Site Assessment Form: Availability. Copies of the blank site assessment form may be obtained upon request to the public information and permitting office of the department or through the department’s website.

Env-Wq 1025.04 Site Assessment Form: Content. The permitted designer shall complete the site assessment form with the following information:

- (a) The name and mailing address of the current owner of record of the property;
- (b) The name and mailing address of the current property owner’s agent for purposes of the sale;
- (c) The name, mailing address, and permit number of the permitted designer who is conducting the site assessment study and the P.E.’s name and P.E. number, if applicable;
- (d) The location of the property being assessed, including the city or town in which the property is located, the tax map and lot number, street address, and subdivision name if applicable;
- (e) A brief description of the property and any structures thereon, including the number of bedrooms;
- (f) The name and mailing address of each abutter to the property, if known;
- (g) The characteristics of the lot, as follows:
 - (1) Lot size in square feet;
 - (2) The slope of the lot;

- (3) The loading capacity of the lot, calculated based on lot size, slope, and soil type;
- (4) The type of water supply to the lot;
- (5) The soil type from U.S. Natural Resources Conservation Service maps or actual data, if available;
- (6) The estimated seasonal high water table from USDA-NRCS maps or actual data, if available;
- (h) Identification of plans and other written materials reviewed and the date of the on-site investigation;
- (i) The date of the on-site investigation;
- (j) The assessor's opinion as to whether the site can support a system meeting current specifications for new construction or expanded use;
- (k) Whether the property currently has any ISDS; and
- (l) Whether the existing ISDS is state-approved and, if so, the approval number.

Env-Wq 1025.05 Attachments to Site Assessment Form.

- (a) If the existing ISDS is state approved, the approval number and a copy of the approved plan, construction approval and approval to operate shall be attached to the original of the form by the permitted designer.
- (b) If the existing ISDS is not state approved, the owner shall provide all available information on the type, capacity, age, and location of the ISDS.
- (c) Whether the ISDS is state approved or not, a site assessment sketch that meets the requirements of Env-Wq 1025.06 shall be attached to and made part of the site assessment form.

Env-Wq 1025.06 Site Assessment Sketch.

- (a) The site assessment sketch shall be an 8-1/2 inch by 11 inch sketch, to scale or with dimensions shown, that shows the location of the following:
 - (1) Approximate property lines;
 - (2) All structures on the property;
 - (3) The existing ISDS on the property;
 - (4) Abutters' septic systems; and
 - (5) Wells on the property assessed and abutters' lots, if known, with a 75-foot well radius shown around each well.
- (b) A site assessment sketch shall not be deemed to be a precise survey of the property.

Env-Wq 1025.07 Site Assessment Study Updates.

- (a) For a subsequent sale of a developed waterfront property for which a site assessment study has been conducted for a previous sale and upon which no change in the information required by Env-Wq 1025.04(d), (e), (g) through (l), or (n) through (p) has occurred, the property owner and assessor may certify that no change in the information required has occurred in lieu of conducting a new site assessment.

(b) The updated certification shall be attached to the original site assessment study, if available, or to a copy of the original site assessment study, and the updated site assessment study shall be made available to prospective buyers of the property in the same manner as original site assessment studies.

(c) The update to the site assessment study shall contain the following information:

- (1) The name and mailing address of the current owner of the property;
- (2) The name and mailing address of the owner's agent for purposes of the sale;
- (3) The name, mailing address, and permit number of the designer who reviewed the site assessment study; and
- (4) The name and mailing address of each abutter to the property, if known.

Env-Wq 1025.08 Signature of Buyer(s) Required. The buyer(s) shall agree to and sign and date the following statement on the "Site Assessment Form" or on the update to the Site Assessment Form, if applicable, at the time of the closing:

I/we certify that I/we have reviewed this Site Assessment Form and understand the information contained herein and that I/we have received a copy of this Site Assessment Form.

APPENDIX A: STATE STATUTES IMPLEMENTED

Rule Section(s)	Specific Statute(s) Implemented
Env-Wq 1001 (also see additional statute for specific section below)	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1001.03	RSA 541-A:22, IV
Env-Wq 1002	RSA 485-A:2; RSA 485-A:29-44
Env-Wq 1003	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1004	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1005	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1006	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1007	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1008	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1009	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1010	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1011	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1012	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1013	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1014	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1015	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1016	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1017	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1018	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1019	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1020	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1021	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1022	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1023	RSA 485-A:1; RSA 485-A:29-44
Env-Wq 1024	RSA 485-A:1; RSA 485-A:4, IX; RSA 485-A:29-44
Env-Wq 1025	RSA 485-A:39

APPENDIX B: INCORPORATED REFERENCES

Rule (Env-Wq)	Reference (Date/Edition)	Obtain From (Cost)
1006.05(a)(1)	Munsell Soil Color Charts (2000)	Various on-line sources* Cost varies from \$185 to \$205
1006.05(b)	Field Book for Describing and Sampling Soils: Version 3.0 (2012) Major Revisions: Geomorphology Section – expanded content Geologic Time Chart – updated Location: GPS, Public Land Survey, UTM – discussion & description details, UTM zone graphic References – expanded and updated by chapter	USDA-NRCS National Soil Survey Center http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053895 Available on-line at no charge: http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052523.pdf

* On-line sources include, but are not limited to, the following:

URL	Price on 07-11-16
https://www.amazon.com/s/?ie=UTF8&keywords=munsell+soil+color+book&tag=googhydr-20&index=aps&hvadid=65971941087&hvpos=1t2&hvexid=&hvnetw=s&hvrnd=14746857789800555285&hvpone=&hvptwo=&hvqmt=b&hvdev=c&ref=pd_sl_7js059n1mv_b	\$185
http://www.forestry-suppliers.com/product_pages/Products.asp?mi=73221	\$195.50
http://www.pantone.com/munsell-soil-color-charts	\$205
https://www.xrite.com/munsell-book-of-soil-color-charts	\$205

APPENDIX C: STATUTORY DEFINITIONS**RSA 485-A:2:**

I. “Developed waterfront” property means any parcel of land upon which stands a structure suitable for either seasonal or year-round human occupancy, where such parcel of land is contiguous to or within 200 feet of the reference line, as defined in RSA 483-B:4, XVII, of:

- (a) A fresh water body, as defined in RSA 483-B:4, XVI(a);
- (b) Coastal waters, as defined in RSA 483-B:4, XVI(b); or
- (c) A river, as defined in RSA 483-B:4, XVI(c).

I-c. “Commissioner” means the commissioner of the department of environmental services.

II. “Development plan” means the final map, drawing, plat or chart on which the subdivider presents his plan of subdivision to the department of environmental services for approval of planned or proposed sewage or waste disposal systems.

III. “Department” means the department of environmental services.

III-a. “Encroachment waiver” means any waiver of the rules adopted in accordance with this chapter which, if granted, would affect the ability of an owner of abutting property to fully utilize his property.

IV. “Failure” means the condition produced when a subsurface sewage or waste disposal system does not properly contain or treat sewage or causes the discharge of sewage on the ground surface or directly into surface waters, or the effluent disposal area is located in the seasonal high groundwater table.

VII. “Lot” means a part of a subdivision or a parcel of land which can be used as a building site or intended to be used for building purposes, whether immediate or future.

VIII. "Other wastes" means garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, ashes, offal, oil, tar, chemicals and other substances other than sewage or industrial wastes, and any other substance harmful to human, animal, fish or aquatic life.

IX. "Person" means any municipality, governmental subdivision, public or private corporation, individual, partnership, or other entity.

X. "Sewage" means the water-carried waste products from buildings, public or private, together with such groundwater infiltration and surface water as may be present.

XI. "Sewage disposal system" means any private sewage disposal or treatment system, other than a municipally owned and operated system.

XII. "Subdivider" means the legal owner or his authorized agent of a tract or parcel of land being subdivided.

XIII. "Subdivision" means the division of a tract or parcel of land into 2 or more lots, tracts, or parcels for the purpose, whether immediate or future, of sale, rent, lease, building development, or any other reason; provided, however, that sale or other conveyance which involves merely an exchange of land among 2 or more owners and which does not increase the number of owners, and on which no sewage disposal system is to be constructed shall not be deemed a subdivision for the purposes of this chapter. Without limiting the generality of the foregoing, subdivision shall include re-subdivision, and, in the case of a lot, tract or parcel previously rented or leased, the sale, condominium conveyance, or other conveyance thereof; provided however that a re-subdivision of lots in previously approved subdivisions, where lot lines are relocated to conform to necessary changes in the plans because of errors in a survey or new street, access or siting requirements, or errors in building locations, and where the lot sizes are not substantially altered shall not be deemed a subdivision for the purposes of this chapter; and provided further that a re-subdivision in which previously approved lots are grouped together to form larger lots shall not be deemed a subdivision for the purposes of this chapter. The division of a parcel of land held in common and subsequently divided into parts among the several owners shall be deemed a subdivision under this chapter.

XIV. "Surface waters of the state" means perennial and seasonal streams, lakes, ponds, and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses, and other bodies of water, natural or artificial.

XV. "Tract or parcel of land" means an area of land, whether surveyed or not surveyed.

XX. "Bedroom" means a room furnished with a bed and intended primarily for sleeping, unless otherwise specified by local regulations.

XXI. "Innovative/alternative waste treatment" means treatment which differs from standardized and conventional practice, offers an advantage over such practice in a proposed application and satisfies the pollution abatement and treatment requirements for sewerage and sewage or waste treatment systems in such application.

RSA 485:1-a:

XV. "Public water system" means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Such term includes (1) any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system, and (2) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Any water system which meets all of the following conditions is not a public water system:

- (a) Consists only of distribution and storage facilities (and does not have any collection and treatment facilities);
- (b) Obtains all of its water from, but is not owned or operated by, a public water system; and
- (c) Does not sell water to any person.

XVI. "Supplier of water" means any person who controls, owns or generally manages a public water system.

RSA 483-B:4:

XI. “Natural woodland buffer” means a forested area consisting of various species of trees, saplings, shrubs, and ground covers in any combination and at any stage of growth.

XIII. “Primary building line” means a setback for primary structures of 50 feet from the reference line.

XV. “Protected shoreland” means, for natural, fresh water bodies without artificial impoundments, for artificially impounded fresh water bodies, except private garden water features and ponds of less than 10 acres, and for coastal waters and rivers, all land located within 250 feet of the reference line of public waters.

XVII. “Reference line” means:

(a) For all lakes, ponds, and artificial impoundments greater than 10 acres in size, the surface elevation as listed in the Consolidated List of Water Bodies subject to the shoreland water quality protection act as maintained by the department.

(b) For coastal waters, the highest observable tide line, which means a line defining the furthest landward limit of tidal flow, not including storm events, which can be recognized by indicators such as the presence of a strand line of flotsam and debris, the landward margin of salt tolerant vegetation, or a physical barrier that blocks further flow of the tide.

(c) For rivers, the ordinary high water mark.

RSA 482-A:2:

X. “Wetlands” means an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

RSA 205-A:1:

I. “Manufactured housing” includes, but is not limited to, manufactured housing as defined by RSA 674:31, and also includes any prefabricated dwelling unit which:

(a) Is designed for long term and continuous residential occupancy;

(b) Is designed to be moved on wheels, as a whole or in sections; and

(c) On arrival on the site, is complete and ready for occupancy, except for incidental unpacking, assembly, connection with utilities, and placing on support or permanent structure.

Nothing herein shall be construed to include campers or recreational vehicles within the definition of “manufactured housing”.

II. “Manufactured housing park” means any parcel of land under single or common ownership or control which contains, or is designed, laid out or adapted to accommodate 2 or more manufactured houses. Nothing herein shall be construed to apply to premises used solely for storage or display of manufactured housing.

RSA 216-I:1:

VII. “Recreational campground or camping park” means a parcel of land on which 2 or more campsites are occupied or are intended for temporary occupancy for recreational dwelling purposes only, and not for permanent year-round residency, excluding recreation camps as defined in RSA 485-A:23.

APPENDIX D: FEDERAL DEFINITION**44 CFR 59.1:**

Special flood hazard area - see “area of special flood hazard”.

Area of special flood hazard is the land in the flood plain within a community subject to a 1 percent or greater chance of flooding in any given year. The area may be designated as Zone A on the FHBM. After detailed ratemaking has been completed in preparation for publication of the flood insurance rate map, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, or V1-30, VE, or V. For purposes of these regulations, the term “special flood hazard area” is synonymous in meaning with the phrase “area of special flood hazard”.

APPENDIX E: STATUTORY IN-KIND REPAIR OR REPLACEMENT**RSA 485-A:33:**

IV. (a) The repair or replacement in-kind of a sewage effluent disposal area shall qualify for a permit by rule, provided all of the following criteria are met:

- (1) The existing system receives only domestic sewage.
 - (2) There is no increase in sewage loading proposed for the repaired or replacement system.
 - (3) The bottom of the bed is located no less than 24 inches above the seasonable high water table.
 - (4) The system is located 75 feet or more from an abutter's well unless there is a standard well release form recorded with the registry of deeds in accordance with RSA 485-A:30-b or there is an existing department waiver to the distance for the abutter's well.
 - (5) The system is located 75 feet or more from the owner's well unless there is an existing department waiver to the distance for the owner's well.
 - (6) The existing system received prior construction and operational approval from the department and the replacement or repaired system will conform to the provisions of such approval, provided the department may by rule require a minimum septic tank size of 1,000 gallons.
 - (7) The system is not within 75 feet of any surface water, water supply well, or very poorly drained soil unless authorized by the prior departmental approval described in subparagraph (6).
 - (8) No new waivers to the department's rules are requested.
 - (9) The system has not been previously repaired or replaced under a permit by rule in accordance with the provisions of this paragraph.
- (b) Construction of the system may proceed upon the submission of an application to the department by a permitted designer under RSA 485-A:35 and receipt of the permit by rule from the department.
- (c) The repaired or replacement system shall not be covered or placed in operation without final inspection and approval by an authorized agent of the department. All inspection by the department shall be accomplished within 7 business days after receipt of written notice from the installer that the system is ready for inspection. The installer shall provide the authorized agent of the department, at the time of the inspection, a copy of the previously approved plan bearing the state approval stamp and associated operational approval, and an existing conditions plan bearing the seal of the permitted designer performing work under the permit by rule.
- (d) The applicant submitting the permit by rule application shall assume all liability and responsibility for the components of the design that are part of the system being repaired or replaced under the permit by rule.
- (e) The installer constructing the system shall assume all liability and responsibility for the construction of the system components repaired or replaced under the permit by rule.
- (f) For purposes of this paragraph, "in-kind" shall mean a repair or replacement of the effluent disposal area in strict accordance with what is shown on the previously approved plan.

APPENDIX F: SENIOR HOUSING

RSA 354-A:15 Housing for Older Persons. – No provisions in this chapter regarding familial status or age apply with respect to housing for older persons. Housing for older persons means housing:

- I. Provided under any state or federal program that the Secretary of the United States Department of Housing and Urban Development determines is specifically designed and operated to assist elderly persons as defined in the state or federal program;
- II. Intended for, and solely occupied by, persons 62 years of age or older; or
- III. Intended and operated for occupancy by at least one person 55 years or older per unit.
- IV. In determining whether housing qualifies as housing for persons 55 years or older, the commission shall adopt rules which require at least the following factors:
 - (a) The existence of significant facilities and services specifically designed to meet the physical or social needs of older persons, or if the provision of such facilities and service is not practicable, that such housing is necessary to provide important housing opportunities for older persons;
 - (b) That at least 80 percent of the units are occupied by at least one person 55 years of age or older per unit; and

(c) The publication of, and adherence to, policies and procedures which demonstrate an intent by the owner or manager to provide housing for persons 55 years of age or older.

V. Housing shall not fail to meet the requirements for housing for older persons by reason of:

(a) Persons residing in such housing as of September 13, 1988, who do not meet the age requirements of paragraphs II or III, provided, that new occupants of such housing meet the age requirements of paragraph II or III.

(b) Unoccupied units, provided, that such units are reserved for occupancy by persons who meet the age requirements of paragraph II or III.

VI. Any rule concerning the exemption available under this section shall be consistent with federal law. In adopting such rules, the commission shall be guided by applicable federal regulations and interpretations concerning housing for older persons under 42 U.S.C. section 3607(b).

VII. Housing for older persons as defined in this section shall comply with the provisions of RSA 161-M.